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October 1972, vol. 63, no. 10

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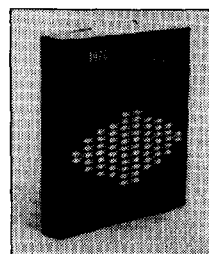
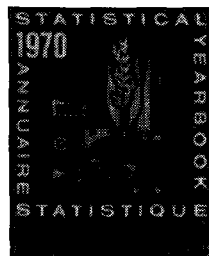
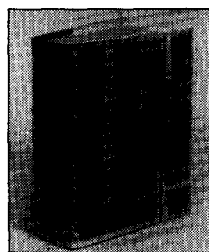
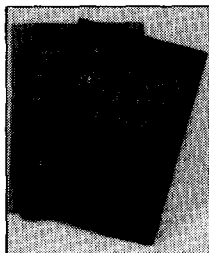
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Preserve or Not to Preserve?

Although I hasten to say I write as an individual member of SLA and not as a representative of the Library of Congress, I feel I must respond to two sentences in Sajor's article on "Preservation Microfilming" which appeared in the April 1972 issue of *Special Libraries*. I quote two sentences which I hope are not considered out of context.

"It goes without saying that, all things being equal, if the material was originally worth adding to the collection it should be deemed a candidate for preservation, especially if it is now beginning to deteriorate. Material not available elsewhere should be also microfilmed so as to become readily available to others."

While the thrust of the article appears to be that all deteriorating items should be preserved somewhere, usually in microform, I feel the emphasis should be put on the term "candidate" and attention given to the fact that after time has passed, things are no longer "equal."

As material becomes older and less useable, its lease on life in a library should become more tenuous. One sincerely hopes that acquisition policy in a library, and particularly in a special library, is based on the needs of the organization. Funds are always limited and considerations of cost, benefit, space, substitution, accuracy, network availability, and so on enter into the decision to spend a library's resources on obtaining any specific item.

When the question of preservation arises, the librarian has a new opportunity and a new obligation to apply the same principles. He can, and he must decide if it is wise to spend some of his limited resources on preserving something which was obtained earlier or if it is now wiser to apply the resources to a different service or function.

I maintain that in many libraries, particularly special libraries, material which was important in former days is no longer so important today. The cost of maintaining and preserving out-of-date material may not be justified. Upon this very principle rests the need to weed collections. Thus, I not only disagree with the inference I drew from the two sentences quoted, but I urge special librarians to use a contrary approach; one in which the current requirement for the ma-

terial is overriding whenever one considers spending money for preservation in the same or a changed format. While the "libraries of record" may necessarily view their holdings differently, I have said informally in the past that I doubt that we do future generations a favor by passing on to them copies of all of our printed products.

F. E. Croxton
The Library of Congress
Administrative Department
Washington, D.C. 20540

Avalanche of Résumés

Having just read the letter headed "Job Applicants Unite!" in the July issue, I would like to add my own comments:

The receipt of unsolicited résumés in this library has increased at least tenfold during the past two years, despite the fact that we are a small library. (The *American Library Directory* lists a collection of 10,000 volumes and the name of only one librarian. There is only one librarian, and this is usual for a collection of this size.)

The job seekers always state that they are "interested in working in your library," but in the overwhelming majority of cases, it is impossible to determine *why*, from looking at the applicant's background and interests.

Usually the covering letter with the résumé is so general that it is suitable for any type of library, and for whatever size. Some are Xeroxed form letters with the name of the library typed in. The most memorable I ever received was itself professionally printed and began, "Dear Librarian."

Because I have no secretarial help, I must type letters of reply myself. And while I too am disturbed about the tight job market, I feel that my time should be taken up with library work, rather than in replying to an applicant who is so obviously sending letters to every library listed within a certain geographic area, and who is also, in effect, inquiring about my job!

Sandra Scott
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Welcome Mrs. Crockett

Mrs. Ethel S. Crockett is the newly appointed California State Librarian following Mrs. Carma R. Leigh, whose long and fruitful administration covered twenty-one years. The State Library Staff Association Officers welcome this opportunity to pledge full co-

operation and support to the new administration. The State Library staff and Staff Association Officers welcomed Mrs. Crockett with a special tea, August 25, following her assumption of her new post, August 14. California librarians look forward to the continuation of California libraries' progress under Mrs. Crockett's able leadership.

Marion W. Bourke
President
California State Library
Staff Association

Dissertation Polemic

Julie L. Moore's response to my letter regarding the *Dissertation Abstracts International Retrospective Index* (Special Libraries, July 1972) is difficult to understand in the light of Part 2 of her article which appeared in the same issue. For therein she says that "complete bibliographic control of a university's doctoral dissertation[s] is assumed by a non-librarian user," and then points out that so far DA has managed to include 55% of the total number of dissertations (although, in fairness, it should be noted that in the last decade of her study she found that DA was including 77%).

To continue to call the DAIRI "an invaluable source" seems a limited view when her analysis showed that DAIRI contains just about half the total number of dissertations and indexes these faultily (as she concurs in her published letter response). A zoology Ph.D. candidate who relies on DAIRI and puts in a couple of years' work—only to find that he is replicating research, not conducting an original investigation—might be unimpressed with the fact that DAIRI "cuts [Ms. Moore's] work load of searching . . . about 45%."

Wm. R. Eshelman
Editor, Wilson Library Bulletin
Bronx, New York 10452

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Information/Library Statistics as a Management Aid: A Graphic Presentation

Alternative Solutions

George J. Snowball

Sir George Williams University, Montreal 107, Canada

■ Three solutions to the problem of treating compiled statistical data graphically are proposed as alternatives to that developed by P. O'N. Hoey. The first, based on the concept of index number, enables growth in different functions to be compared; the second, based on component-bar graphs, provides a simple

visual comparison of changes in each function, and the overall operation of the library; the third, also based on component-bar graphs, emphasizes the importance and complexity of functions, by weighting the values given to each. The solutions result in more immediate visual impact than that of Hoey.

THE AIM of graphic presentation of data is to summarize clearly, and with considerable initial visual impact, the facts and inferences to be drawn from the data. The presentation should be prepared with the viewer in mind, and care should be taken that preconceived ideas of the significance of types of lines and notation will not influence the viewer's interpretation. Among these are: (a) the baseline of reference, against which other lines are judged, is normally a straight horizontal line (this is not part of the grid upon which the graphs are drawn); (b) a continuous line, or curve, whether smoothed or segmented, normally relates to a single variable, either continuous or discontinuous, not to discrete elements; (c) numeric scales normally represent variables.

The Graphic Method

In his paper (1) P. O'N. Hoey describes a graphic method of presenting

statistical information as an alternative to columns of figures as a means of "demonstrating unequivocally to my manager the need for continuing to fund the service." Hoey's method, while it is an ingenious way of presenting a multiplicity of data concerning a variety of operations, does not meet the criteria enumerated.

The first criticism is that on superficial examination (initial visual impact) the graphs appear to be cumulative frequency polygons, or ogives (2), with a variable on the abscissa. It is not until the graphs are examined carefully and in detail, in conjunction with the text of his paper, that it becomes apparent that the figures on the abscissa represent discrete entities, or functions. This problem can be solved simply, by using alphabetic rather than numeric notation, e.g. A—Circulated J., B—Requests from Abstract Journals, etc.

The second criticism is that the curves for each year (his figure 2) appear to in-

dicate on first examination (initial visual impact) that all phases of operations declined in 1969 (as indeed they did) and that the overall value of services also declined. However, when the totals are examined (the present author estimated these—Table 1—from Hoey's figure 2) it is apparent that circulation of journals (category A/1) and requests from abstract journals (category B/2) declined from 1967 to a greater extent than did the other services.

A third criticism is that initial inspection indicates that the amount of work involved in categories 1 to 3 has changed to a greater extent than has that for categories 4 to 9—the slopes of the curves are steeper for the former than the latter categories. While this may be true in absolute terms, close examination of the figures and estimation of the number of items in each category shows that, by comparison with 1967, the highest growth rates are for categories 5, 7, and 8. The present author estimates, for example, that in 1967 category 8 comprised approximately 50 units, while in

1970 it comprised 400 units—an increase of 700%; by contrast, circulated journals increased from 15,300 to 16,000—an increase of only 4%.

Relative Change

To meet these criticisms the present author has recast Hoey's figure 2. The totals for 1967 have been converted to base or index numbers—100 for each category—giving a total base of 900. The totals for the other years have been converted to index numbers by comparison with 1967 (index number = value for year \times 100/value for 1967). The merit of this approach is that it makes possible a comparison of growth for each category. It also emphasizes the effects of the smaller absolute changes for the categories involving more complex operations (e.g. interlibrary loan) compared with the larger ones involving simpler operations (e.g. circulation of journals). The derived graph (figure 1) has the following advantages over those of Hoey: (a) the initial visual impression of a vari-

Table 1. Numeric Values on Which Figures Are Based

Category (Hoey's # in Paren- theses) and Weighting	1967			1968		
	Estimated # of Units	Weighted # of Units	Index #	Estimated # of Units	Weighted # of Units	Index #
A(1) 1	15,300	15,300	100	15,500	15,500	103
B(2) 5	2,500	12,500	100	5,500	27,500	220
C(3) 5	3,100	15,500	100	1,100	5,500	35
D(4) 10	1,100	11,000	100	1,400	14,000	127
E(5) 5	1,100	500	100	125	625	125
F(6) 1	100	100	100	125	125	125
G(7) 10	100	1,000	100	100	1,000	100
H(8) 10	50	500	100	200	1,000	200
I(9) 100	50	5,000	100	100	5,000	100

Category (Hoey's # in Paren- theses) and Weighting	1969			1970		
	Estimated # of Units	Weighted # of Units	Index #	Estimated # of Units	Weighted # of Units	Index #
A(1) 1	12,000	12,000	78	16,000	16,000	104
B(2) 5	3,750	18,750	150	6,100	30,500	244
C(3) 5	3,350	16,750	108	1,500	7,500	48
D(4) 10	1,300	13,000	118	1,500	15,000	136
E(5) 5	100	500	100	300	1,500	300
F(6) 1	100	100	100	200	200	200
G(7) 10	400	4,000	400	700	7,000	700
H(8) 10	300	3,000	600	400	4,000	800
I(9) 100	100	10,000	200	0	0	0

able on the abscissa is eliminated by use of alphabetic rather than numeric notation; (b) the irregular line of reference (the 1967 line) is replaced by a straight line; (c) emphasis is placed on relative rather than absolute change. The resultant curves indicate that the major functions of the library increased in 1969, relative to 1967 and 1968, rather than decreased.

Both Hoey's figure and that derived from it suffer from two defects: Both have sloping baselines of reference, and neither presents a variable on the abscissa, although the curves are shown as continuous, albeit segmented, lines.

Two additional alternative solutions to the problems are proposed. First, the data are represented by component-bar graphs (figure 2) linked (in the style of stratigraphic columns used to illustrate geological reports) to represent variations with time. The linking lines assist the reader by carrying his eye from column to column and, by widening and narrowing relative to each other, provide a visual impression of comparative increases and decreases between functions. It is readily apparent that the same general impression of decreased services in 1969 is given, but this solution increases the ease with which relative changes between services can be compared.

The difficulty with this solution is one of scale, due to great variation of the totals of items for each service. Emphasis is given to the simpler but numerically greater services.

The second solution—weighted component-bar graphs—overcomes the objection to the one previously suggested.

For the purpose of this paper arbitrary weightings have been assigned to each category, based on assumed relative complexity and importance of each operation. These weightings are:

Category	A(1)	B(2)	C(3)	D(4)	E(5)	F(6)	G(7)	H(8)	I(9)
Weighting	1	5	5	10	5	1	10	10	100

(In practice, weighting could be based on unit cost of each operation, the relative importance attached by users to each function, or the unit value in monetary terms assigned by users.) Figure 3 con-

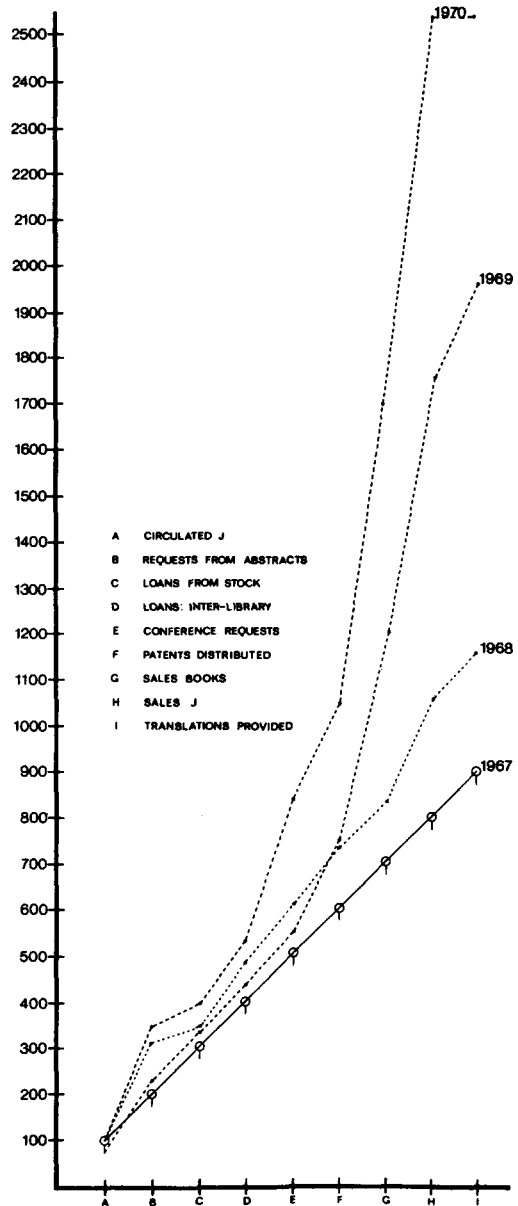


Figure 1. Graph Derived from Hoey's Figure 2

sists of component-bar graphs based on weighted totals. It is apparent that the more important or complex operations are emphasized, indicating a total comparative increase in the major functions

of the library in 1969. It is also apparent that the composition difficulties of the presentation due to numeric variation in the sizes of the categories are eased. (A note of caution—weighting and change of scale should not be chosen only with ease of composition in mind!)

While this paper has been critical of the details of Hoey's method, it is intended as a contribution to the development of simple graphic presentation of data. The author believes, with Hoey, in the importance of presenting data in such a way that they can be easily understood and interpreted, as a means of identifying changes in library operations

and assessing the significance of changes in services.

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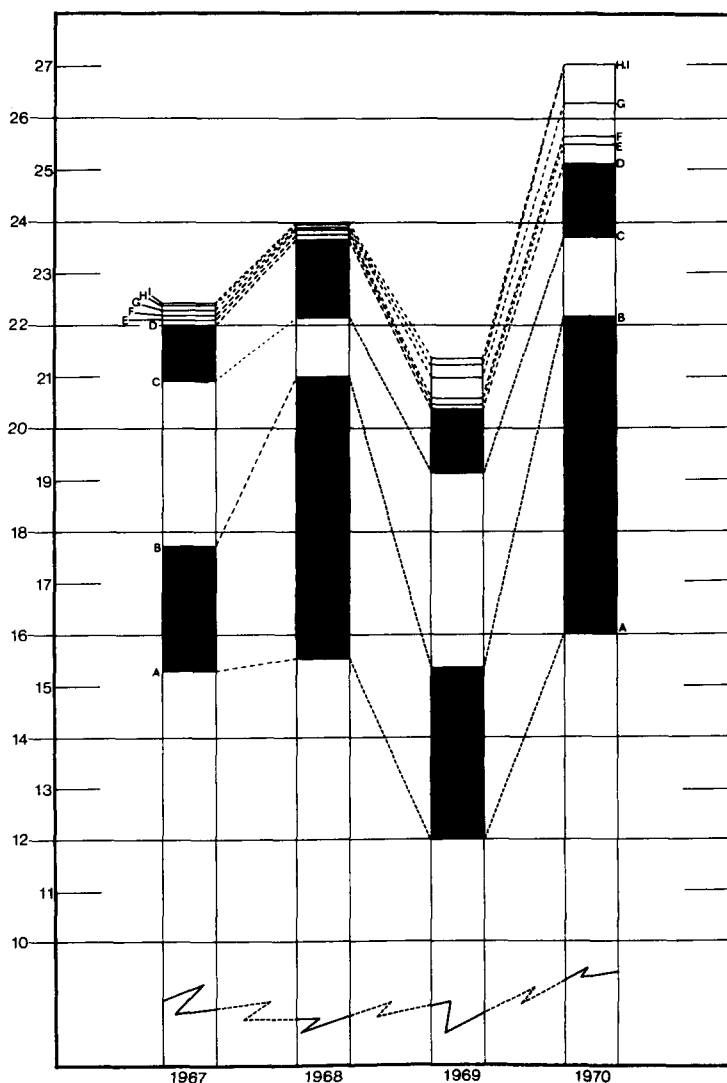


Figure 2.
Component-Bar Graph

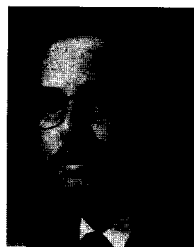
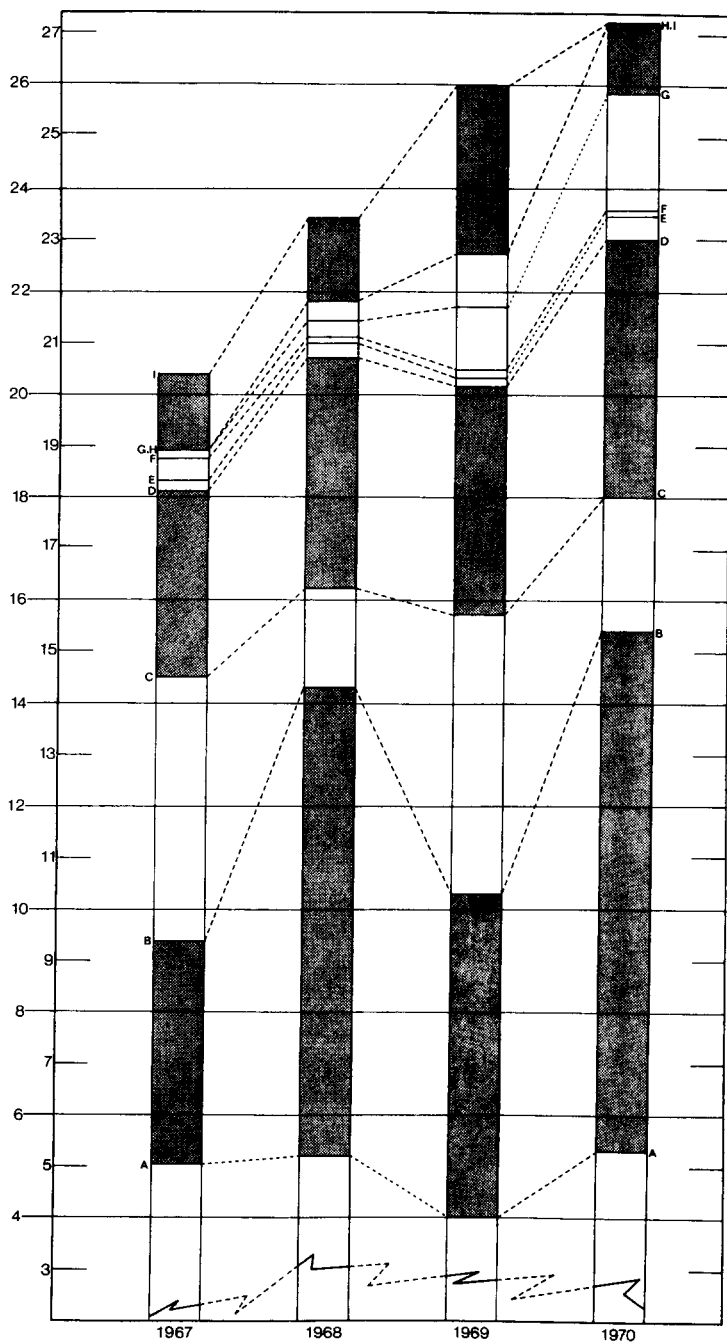


Figure 3.
Component-Bar Graph
Based on Weighted Totals

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Picture Organization

Practices and Procedures, Part 1

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■ Three methods of picture storage and retrieval used in collections without automatic data processing facilities are discussed in two parts. Part 1 covers self-indexing files which can be used for portraits, geographical pictures, things, plants, animals, and events. Part 2, to appear in the Nov 1972 issue of *Special Libraries*, discusses individual cataloging

and group cataloging. Individual cataloging should be given to valuable items such as original cartoons, artists' drawings and architectural drawings, historical prints, fine prints, posters, as well as fine photography. Group cataloging is recommended for less valuable pictures with a common theme.

MAJOR PICTURE COLLECTIONS receive letters weekly from colleges, professional organizations, and industrial firms asking for advice in organizing their pictures. Frequently these collections were allowed to grow imperceptibly from a few photographs documenting personnel of the institution, special events, new buildings, or expanded activities to elaborate documentary files describing the entire history of an organization. As long as the files consisted of a few thousand pictures, these could be located with the help of guide cards separating groups of pictures. But eventually the size of the collection grows so large that a decision is forced upon the owners to arrange it according to some kind of scheme with adequate room for expansion.

At this point the keeper of the collection searches through library literature looking for possible patterns to follow.

There are no textbooks devoted to the organization of either universal or specialized picture collections. He must therefore turn to the fairly sparse periodical articles devoted to this subject. Many of these articles describe commercial and expensive systems with very little application to a collection of more modest size maintained on a limited budget.

This article is devoted to a discussion of some general principles underlying picture organization and the practical solutions to the physical arrangement of pictures.

Universal picture collections have more complex problems than those devoted to a special subject. There exist, nevertheless, certain principles which apply to all picture collections. These should be recognized before the final decision for processing the collection is made.

The first questions to be tackled are those of depth of cataloging, time limitations, staff, subject specialization, and financial support.

SELF-INDEXING FILES

Depth of Cataloging

The most frequently called for picture in general collections is a portrait (Figure 1). The cataloging of portraits for a self-indexing file is at first glance a simple matter which ought not to cause much trouble to even an inexperienced picture cataloger. The actual problems encountered in portrait work are therefore quite surprising when one sets out to establish a logical system. If the caption information is too scanty, the wrong picture will be furnished to the patron; if the cataloging is too elaborate, so few portraits will be added to the file that the entire system breaks down. Therefore a decision must be made from the beginning to give sufficient information to distinguish a person unequivocally from another with the same or a similar name. The following minimum information is needed for avoiding mix-ups:

- ▶ File Designation: *Portrait File* or *Personality File*
- ▶ Last name, first name, middle name
- ▶ Life dates
- ▶ Title, occupation, or identifying phrase
- ▶ Negative number [when applicable]

In specialized files of photographs consisting of many portraits in different art media it is desirable to supply such additional information as artist's or engraver's name, original medium, present location of original. If the location of a superior portrait is known, this information can be added on a dummy with or without an added picture. In cases where permission must be sought for reproduction or publication, the provenance is of prime importance.

Captions on pictures received from different sources, e.g., newspaper morgues, commercial photographer's files, private



Figure 1.

Brumidi, Constantino, 1805-1880
Principal painter and decorator of
the U.S. Capitol.
Contact print from glass plate negative
in the Brady-Handy collection,
Library of Congress 1870's (?)
Portrait File LC-BH832-30755 p.3

* *

individuals, or miscellaneous donors should always be checked for accuracy by comparing the names to entries used by the Library of Congress, *Webster's Biographical Dictionary*, different professional directories or guides, even telephone books. A simple spelling mistake in a surname means that the picture will be erroneously filed and therefore lost until discovered by chance. Whenever a name is in any way complicated, the headings for persons in the *Anglo-American Cataloging Rules* should be consulted as a guideline for the establishment of filing entries. Special caution should be exercised in trusting dates on updated newspaper pictures. When an up-to-date picture of a personality in the news is not available, most newspapers will run an old picture with a new date. Thus the captions are not trustworthy.

It is often important to the picture user to know the age of the sitter at the time the portrait was made. In describing the life of a distinguished person the significant points of his career need documentation in pictures as well as in writing. It is a time-saving practice in large collections to file extensive pictorial material related to a person in one sequence if permissible. This is sometimes

prohibited by a donor who wants his own collection preserved intact. The pictures should be subdivided into meaningful groups so that a specific event in the life of the subject can be easily located. The subdivisions used in arranging the pictures should be clearly marked on a guide card immediately below the person's name.

Captions

It seems obvious to expect the important cataloging elements to appear in the same location on each picture mount or envelope. When prints or photographs are mounted on stiff acid-free board, the caption information should appear on the top of the mount. This arrangement is desirable for two reasons: 1) when the name appears in the upper left-hand corner browsing is facilitated because the picture need not be pulled out of the file each time for verification of the name; 2) when several pictures are arranged in a graduated manner, the captions can be Xeroxed in one operation. This speeds up listing of captions for customer and curator. Only one picture should be mounted on each board. Experience has shown that much confusion is caused by the practice of mounting several similar pictures on one board to save time and materials.

Loose-leaf notebooks are sometimes used for picture safekeeping. It is, however, much easier to compare illustrations and layouts if pictures can be freely arranged on a surface in different patterns without having to be removed from notebooks. If a collection grows very slowly and the basic arrangement is likely to stay the same indefinitely, notebooks may be a suitable solution. This arrangement could be used for retrospective files of personalities, e.g., retired officers of a company. New loose-leaf books could easily be added when needed and biographical data interfiled with the portraits.

Size of Pictures in the Collections

The basic function of an institution and the needs of its users determine the

size of the individual stored images if these are made to order.

In the Public Archives of Canada the original pictures are handled only five times from the arrival of the pictures in the collections to the time they are permanently filed in closed stacks. The library patron is only permitted to work with 5" x 8" catalog cards (Figure 2). A 4" x 5" image is mounted flush to the right-hand edge of each card; the cataloging information is on the left. This arrangement requires the copying of every newly accessioned picture, its reduction or enlargement to an identical 4" x 5" size, dry mounting on the card and filing of the negative in a different location not accessible to the public.

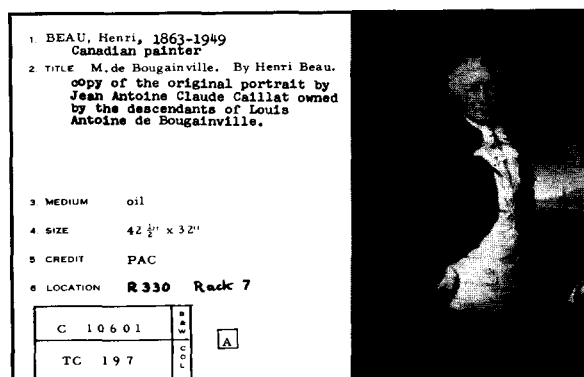
This system is obviously costly, but in the case of the Public Archives of Canada it was considered a necessary measure for the conservation of unique historical holdings.

If an institution is faced with the organization of thousands of portraits and very limited funds, are there any suitable methods for bringing these pictures under some semblance of control?



Figure 2.

Bougainville, Louis Antoine de, 1729-1811
French Navigator
Portrait by Henri Beau (1863-1949),
copy of original oil painting by
Jean Antoine Claude Caillat owned
by the descendants of
L. A. de Bougainville.
Card from the Public Archives of
Canada. p.6



If mounting is too expensive, storage in envelopes with clearly marked captions and inserted cardboard supports is one solution. The cardboard is necessary if the pictures are stored in a vertically standing box or filing cabinet. Photographs on thin paper tend to curl easily if they are stored flat in boxes without a weight to press them down. Therefore, unmounted and unbacked pictures should not be left in large containers where they can move around and eventually get damaged.

Oversize pictures must also somehow be reflected in self-indexing files. The easiest solution is to place dummies in appropriate places referring to the oversize picture's location. A costlier solution is to photograph the pictures and mount them identical in size to the rest of the collection. A cheaper solution would be the use of photostats or microfilm enlargements which, although not as clear and detailed as photographs, in this case are adequate for purposes of identification.

Three Basic Approaches to Portraits

Museums, archives, and libraries will treat their photographs of personalities differently because their files serve essentially dissimilar purposes. In art museums photographs and data pertaining to a portrait, e.g., an oil painting, a piece of sculpture, or a miniature, are grouped together in a folder, which forms the documentation on the work of art primarily and only secondarily concerns itself with the sitter. His career is of interest if he is of historical importance and the picture illuminates some facet of his life. *Napoleon in His Study* by Jean Dominique Ingres (Figure 3) exemplifies this kind of documentation.

In archival collections portraits cannot be rearranged in new sequences to suit the interests of the archivist or the user. The location of the pictorial document is prescribed by its provenance, e.g., the papers of a certain family. Individual items must be located through indexes. The depth of indexing depends on the resources of the institution. In theory

everybody prefers well-indexed collections; in practice this is seldom easy to realize.

Library portrait collections are generally alphabetically arranged regardless of provenance. This is the most desirable arrangement for the average user who is interested in locating specific personalities.

Geographical Files

Geographical files can also be arranged in self-indexing sequences. As with portraits, the most important feature to emphasize is the consistency of entries. *The United States Board on Geographic Names* publishes Gazetteers for different countries. *The Columbia Lippincott Gazetteer of the World* and *Webster's Geographical Dictionary* can be used as sources for main filing entries.

In captioning photographs, the cataloger must generally supply his own in-

* *

Figure 3.

Napoleon in his study, 1812.
Portrait by Jacques-Louis David (1748-1825)
Canvas 80¼" x 49½"
National Gallery of Art
Washington, D.C.
Samuel H. Kress Collection. p.7



formation because photographs seldom come with fixed legends. The same sequence of geographic terms should be observed in a consistent manner. One suggestion for a caption strip is:

Country:

State: [Geographic file]

City, town, etc.:

Closer immediate location:
(building; view; natural feature, etc.)

Photographer:

Date:

Negative number:

It is obvious that a historical society which catalogs pictures of one city or region will have to go into greater detail than a national or international collection with a wide span of geographical locations. *The California Historical Society* has its photographs of San Francisco arranged by street and street number. This degree of specificity is very desirable in collections which mainly serve local historians and authors. *The Musée Carnavalet*, devoted to the history of Paris, follows the same arrangement.

Historical or modern geographic prints usually come with captions supplied by the artist. If the title is incomplete, e.g., *Shasta Peak* (Figure 4), the cataloger should search the location and in case of this print add "California." [California]. This completed information is needed for proper filing as well as identification when a visual image is

not available and an inquiry is received by mail. It is necessary to supply all the needed information at the point of processing when the cataloger is actually holding the picture in his hands. It is both costly and cumbersome to retrace the cataloging steps at a later date when pertinent information may have been lost.

What is a geographic photograph or picture? When an image is a record of a landscape, a city view, a building, bridge, or other natural or man-made structure without a historical or human interest story as its main point of interest, it may be described as a geographic picture. Geographic images with a special focus can more advantageously be filed under specific headings such as *Canal-boats, Hospitals, Markets, Prisons, or Railroads*. When this is done, the geographic approach is lost unless the reader is made aware of the existence of a geographical file.

In geographical picture files suggestions for improving captions can be applied similarly to those of portrait files. All information should be checked, dates verified, oversize pictures reflected in the general files, and references to like material in other locations furnished through *see also* references.

Things, Plants, Animals

When geographical pictures have been separated from unsorted material, there still remain images which can be treated

* *

Figure 4.

[California] Shaste Peak. (today Shasta Peak)

engraving by George B. Ellis after drawing by Alfred T. Agate.

Source: Wilkes, Charles *Narrative of the United States Exploring Expedition during the years 1838, 1839, 1840, 1841, 1842*. Vol. V, facing p.240 [Q 115 W66, 1845] LC-USZ62-8111 p.9



in a self-indexing manner. These pictures consist of "Things," "Plants," or "Animals" so characteristic of their kind that one approach is sufficient to find them. Examples of these subjects are: *Alfalfa, Automobiles, Balloons, Camels, Corn, Cotton, Ferries, Fox-hunting, Hammocks, Outdoor Cookery, Sidewalk-Cafés, Stunt Flying, Veterinarians.*

In a small collection more general headings such as *Transportation, Inventions, Sports, Household Appliances* may be used. These will in time have to be subdivided to accommodate additional pictures. Greater specificity is desirable in self-indexing files to save the user the difficulty of wading through masses of material only marginally related to the subject he is trying to cover.

Scope notes should explain the usage of terms, e.g., *Caterpillars (Vehicles).*

Browsing files of miscellaneous pictures are common in universal collections where pictures of innumerable categories must be accommodated. Most collections are reluctant to recommend their usage for others to follow because the idiosyncrasies of one collection may seem incomprehensible to other catalogers. The Newark Free Public Library is one of the few collections which has published a guide to their subject headings (1).

Picture collections devoted to special subjects such as *anthropology, aviation* or *forestry* develop entirely different types of headings based on the scientific discipline they serve.

Events

Portraits, geographic pictures and "things" are relatively easily taken care of in self-indexing files. The real problem in using this simple form of filing consists of pictures with so many possible subjects that one approach cannot adequately cover their contents.

Some possible points of access are those of chronology, nationality, picture format, art medium, reference to a specific discipline such as the Byzantine, Hispanic or Oriental fields, military science, Christian iconography or provenance of collection. Even when the aim is to provide more than one point of access, the actual physical image must be placed in a specified place unless the same image is duplicated and filed under different headings. Most collections do not like to do this. The reason for the reluctance is the difficulty in preventing the proliferation of negatives from the same original image and the difficulty in adding caption information. An elaborate system of tracings would have to be maintained to avoid this duplication. The newly created negative numbers would have to be added to each previously filed picture. Another way to provide multiple access would be to assign pictures purely arbitrary numbers and to refer to these numbers using a card catalog with as many subject approaches as needed.

As an example of the complexity hidden in a picture we will look at a wood engraving (Figure 5) captioned: "A com-

* *



Figure 5.

[Massachusetts, Boston] A Company of Swedish Emigrants passing our office, bound to the West. Wood engraving by Samuel Worcester Rowse in *Gleason's Pictorial Drawing-Room Companion*, October 30, 1852. LC-USZ62-22073 p.13

pany of Swedish emigrants passing our office, bound to the west." (Wood engraving in *Gleason's Pictorial Drawing Room Companion*, October 30, 1852, p.288. [LC-USZ62-22073])

This picture could be filed under many different headings if one wished to bring out all the subjects in it. In a historically oriented collection the subject of *Immigration* might be considered the most valid entry. Other possible entries are: "Boston, Massachusetts, Tremont Street, 1852"; "Gleason's Pictorial Drawing Room Companion Office"; "Westward Movement"; "Jenny Lind Swedes" (2); "Wagon Trains"; "Scandinavians in the U.S."

The picture also includes a theater poster for the Boston Museum advertising the appearance of Julia Bennett, a British actress who had made herself known on the New York stage the previous year. This would justify including the picture under a very general heading, e.g., *U.S. Theatre*; *U.S. Social History*; or *U.S. Social Life and Customs*. The clothing of the spectators on the street also documents a very specific time and place seen through the eyes of Samuel W. Rowse (1822-1901), the wood engraver for the magazine.

Time Limitations

A very special problem of picture organization occurs in newspaper morgues where hundreds of photographs of current events are received daily. These photographs have to be filed by subject within one working day because the very next day the same number of news photographs must be processed. If the staff is limited to two picture specialists, decisions for filing entries must be made instantaneously. The entries have to simultaneously fit current interests and practices as well as future needs for story round-ups and wrap-ups of recent news events.

In times of war, civil strife, or political campaigns, the production of pictures increases and makes quick decision-making more urgent. The photographs can be filed more speedily in space sav-

ing electric rotary files which also save steps thanks to the advantages of compact storage.

The Washington Star, an evening newspaper, keeps on current file approximately 100,000 personality photographs and 50,000 photographs arranged by subject. Of the 300 photographs received on an average day, 100 may be filed under Personal, 80 under subject headings, and the rest under DISCARD. The DISCARDS are kept until the following June; then they are reappraised and either incorporated into the collection or discarded for good.

Before any type of subject heading scheme is chosen for a collection, the time element should be considered. If retrieval time is of prime importance, headings should be direct, specific, and current. Subdivisions should be standardized under large entries and local subjects brought out through special devices, such as colored tags or special folders. An authority file should always be maintained to document the latest revisions.

Staff

The staff of picture collections varies in education and background from one institution to the next. Only quite recently has it been realized that if libraries require professional librarians, then picture libraries require professional picture librarians.

This brings us to an interesting question: how can professional picture librarians be found to organize and service picture collections if there are no university programs to provide the needed education for the work? At present we know of only two graduate schools aiming to fill this educational need. The Pratt Institute Graduate Library School offers a course in the *Organization and Use of Pictures as Documents*, and the University of Louisville has a graduate program leading to a Master's Degree in Curatorial Science. Graduates of this program are trained to maintain art history slide collections as well as photographic archives of various kinds.

Picture work is a form of special librarianship which demands training beyond the general graduate library school. Without a special interest and talent for the visual field a person cannot succeed in memorizing the innumerable images he encounters in his daily work nor can he sort out and arrange this visual knowledge into a coherent entity which forms a logical framework for future development. It is unfortunate, indeed, that very few private or government collections have found it necessary to recruit or to train an academically qualified staff to serve their collections.

Subject Specialization

Picture organization in a special library requires more than superficial knowledge of the major field of the collection. The chief cataloger must be steeped in the special field be it humanities, social sciences, natural sciences, or technology. He is called upon to devise a scheme which serves the needs of the specialist as well as the educated layman.

Some examples of highly specialized subject arrangements are those of the Byzantine Photograph Collection of the Dumbarton Oaks Library in Georgetown, D. C. Here, subject headings were developed from the material at hand and checked by comparing terminology used in the *Byzantinische Zeitschrift*.

To organize a collection in the field of Byzantine Studies, a cataloger should not only be familiar with iconography, hagiography, sigillography and heraldry but with all other important facets of Byzantine art and life.

An entirely different type of preparation is needed for work in the field of anthropological documentation. We are using a catalog card (Figure 6) from the photographic negative catalog of the National Anthropological Archives as an example of the special emphasis of their approach.

The Prints and Photographs Collection of the National Library of Medicine is basically a historical medical collection. Their subject headings are derived from MeSH (Medical Subject Headings),

created at the library itself. If no suitable headings for pictures are found, the Library of Congress headings are checked for possible guidelines. The major problem in deciding what heading to use is the difficulty in finding a term acceptable to the medical profession as well as the layman. Should the cataloger use neoplasm or tumor? MeSH would favor the former and the Library of Congress the latter. The decision must be made at the beginning of the cataloging process and then followed consistently throughout the collection.

Financial Support

Picture collections which form an integral part of a commercial venture such as a news magazine or daily paper can prove their usefulness daily by their services to the staff and its readers. The pictures must be well organized and serviced to contribute significantly to the operation of the business.

The General Secretariat of the Organization of American States maintains a Central Photograph Unit in the Columbus Memorial Library. The photographs are arranged by member state with identical subdivisions, e.g., *Antiquities*, *Native Activities*, and *Recreation*. This collection is an example of a picture collection which manages to exist without financial support for picture acquisition. All the photographs are acquired from airlines or business cor-

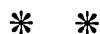


Figure 6.

Catalog card from the Smithsonian Institution, National Anthropological Archives, p.16

SMITHSONIAN INSTITUTION, NATIONAL ANTHROPOLOGICAL ARCHIVES	
PHOTOGRAPHIC NEGATIVE CATALOG	
NO.	72-320; 72-3210
TRIM	MONTAGNAIS
SUBJECT	Camp on Grand Lake, Labrador, Canada
SOURCE	Copies (3/19/72) from orig. prints in USNM Colln. (Cat. No. 133,912:(1)-(2), Acc. No. 23,288, rec'd from Henry G. Bryant, 1227 N. Broad St., Philadelphia, Pa., Jan. 20, 1892)
DATE	On or before July, 1891
PHOTOGRAPH	
REMARKS All info. extracted from writing on reverse of orig. prints and accession abstract on file in NAA.	
Shows canoe on beach, Indians working, bark and cloth lodges, bearskin stretched in frame and strips of wood prepared for canoe-building.	
No. 72-3210 is a close-up view of 72-3203.	
HABITATIONS. HIDE PREPARATION.	
CR/3/1/72	

porations interested in giving away free photographs as goodwill gestures. This type of financial arrangement is relatively rare because most picture collections manage to receive support from appropriations marked specially for their use. Picture collections in federal libraries are supported by appropriations deemed necessary to interpret the role of the agency in the federal hierarchy. The extent of service to the general public is in direct proportion to the money appropriated for this activity. The National Aeronautics and Space Administration and the Defense Department receive financial support undreamed of by other government agencies. Thus these collections are able to introduce automatic data processing and on-the-spot picture delivery in their collections.

We have discussed the depth of cataloging, time limitations, subject specialization and staff in relation to picture organization. All of these problems and their solutions are based on the financial

support received by the picture collection. If the organization has to operate on a shoestring, not much professional performance can be expected from it.

(Continued in Nov 1972 *Special Libraries.*)

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Preservation and Maintenance of Maps

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■ The problems of storage and maintenance which confront the map librarian are discussed. Included are the causes of map damage and deterioration, methods of detection and correction, and suggestions of further measures for opti-

imum preservation. Proper storage facilities using commercial equipment, or improvised equipment where funds are limited, are indicated. Useful guides on preservation and maintenance are cited.

MAP PRESERVATION and maintenance can be easy for every librarian. Information on the causes of map damage and deterioration as well as suggestions for proper storage and care is readily available. It behooves the librarian to familiarize himself with the source materials on the problems of preservation and care of maps and to utilize the means at his command to establish proper procedures and methods to preserve the maps in his library's collection.

Map care is relatively simple if properly undertaken. Good storage facilities and careful handling, along with proper repairs whenever damage appears, will increase the longevity of any map. Prevention of damage is sometimes expensive, but it is more reasonable than restoration and considerably less expensive than replacement of valuable and rare maps damaged and destroyed by neglect. To better understand the problem of preservation, one must recognize the causes of map damage and deterioration. In this area, a comprehensive, practical and useable guide for the map li-

brarian is George D. M. Cunha's *Conservation of Library Materials (1)*. Cunha exposes the enemies of library and map materials and thoroughly discusses techniques and methods for combating them. He also offers a commentary on the information sources available and invaluable appendices which contain vital preservation data and formulas. For all aspects of map conservation, the librarian would do well to consult this noteworthy and timely publication. The ten common foes of maps as enumerated by Cunha are people, air, light, heat and moisture, insects and rodents, fungi and acid.

People

The majority of maps are on paper and consequently subject to damage by the thoughtless user, but the damage is not limited to the user alone. Avoidable damage done to maps by uninformed librarians with good intentions includes the use of pressure sensitive tapes for mending, indiscriminate use of synthetic

adhesives, use of highly acid paper for protective folders, use of wood backing in map frames, amateur lamination and improper storage. Pressure sensitive tapes should never be used to repair maps, for such repairs are only temporary and chemicals in some adhesives leave a stain that cannot be removed. Some tapes make claims to be non-staining and more permanent, but because there is little information on the materials in these adhesives, it is advisable to avoid them.

One of the basic principles in the restoration of maps is that nothing shall be done which cannot be undone if necessary. Polyvinyl acetate formulas, for example, are good adhesives and nothing more. They make very strong bonds which may or may not be reversible. Use only the endorsed products from a reputable supply house, and even then the reversibility should be checked before use on valuable maps.

Maps should be kept dust and dirt free, but selection of folders and wrappers warrants careful attention. Highly acid inexpensive papers will do more damage than the dust. Acid in low grade paper migrates rapidly to the material in contact with it. Newsprint, besides being highly acidic, absorbs and retains moisture making ideal conditions for mold growth and should not be used.

Maps which arrive at the library framed with a wood backing should be removed from the backing immediately. The resins and acids in the wood darken and weaken a map and airborne moisture collects in the loosely fitted frames to stain the contents.

Lamination, the process in which a sheet of cellulose, acetate film and usually a strengthening tissue are applied to the sides of a document or map by using heat and pressure, is a recommended method of preservation. William J. Barrow is a pioneer in the field of deacidification and lamination and introduced the process which bears his name. In the "Barrow Process" (2), the paper is pre-treated in liquid baths which neutralize actual or potential acidity before the item is laminated. These liquid baths in which the chemi-

cals act to deacidify the paper are equally important for the preservation of paper that is not to be laminated. The restorative measure of adding moisture to the dehydrated, brittle paper takes place simultaneously. Laminating and chemical baths require training and skill and should be done by specialists. Lamination is not needed for all maps. It is recommended only for those receiving frequent or constant use and for those which are at the point where they cannot be repaired by traditional methods.

Air

Impurities in the air can also damage maps. Sulphur dioxide, hydrogen sulfide, ammonia, nitrogen dioxide, ozone and aerosols are known contributors to the decomposition of paper. No library is safe from the impurities in polluted air, thus the librarian stands to gain from the current campaigns to rid the nation of polluted air. Air conditioning, either through the room or central systems, will filter the air, eliminating some of the noxious gases and minimizing chemical deterioration.

Heat and Moisture

Heat, though essential for the patrons of the library, produces conditions necessary for the growth of mold and fungi, encourages the presence of rodents and insects, and accelerates the chemical deterioration of paper. The heat of accidental fires will damage maps even though they may be untouched by the flames. Intense heat causes paper to lose its fold strength and become brittle. This also results when maps have been stored in an unventilated, uninsulated room, near radiators or in lighted display cases. Low temperatures and low humidity act to decrease the rate of deterioration, and refrigeration of library materials prolongs their useful life. Controlled temperatures ranging from 60°–75° should be maintained. Air conditioning, by improving the ventilation, also decreases the rate of deterioration. Needless to say, fire preventive measures are essential at all times and should be

checked periodically. The moisture with which we are concerned is water vapor or humidity in the air. To a certain degree such moisture is needed for the preservation of maps, for it sustains the flexibility of the paper, but either excessive moisture or insufficient moisture may be harmful. The absence of water vapor does inhibit the rate of bleaching, but it weakens the paper. Mold and fungi are encouraged and thrive in cool moist environments. Floods of any kind whether caused by leaking pipes, water from fire hoses during a building fire or by natural disasters are the librarian's nightmare. Spilled drinking water and coffee are minor disasters of the same order. When they do occur, the librarian must act quickly to remove the stains and dirt and dry the maps before they become soft and spongy and disintegrate. Techniques developed and used to save the library materials damaged by the 1966 floods in Florence are benefiting all libraries and have been called to use in the recent floods in Harrisburg, Pennsylvania and Corning, New York. Control is the most effective means of preventing mold growth and decreasing the chemical deterioration of maps. For optimum preservation, the relative humidity in the library should be maintained at 50%–60%. Where central air conditioning is not available, the humidity may be reduced by mechanical units or desiccants. A direct reading hygrometer is useful in the environmental control of all library materials.

Light

Excessive or insufficient light is damaging to maps. Natural or artificial visible light bleaches the colors in maps; the ultraviolet light present in daylight and fluorescent lamps causes the paper in maps to become brittle and lose strength when exposed for prolonged periods. Maps exposed to these harmful rays become particularly sensitive to damage by alkalis during restorative processes. Because maps are usually displayed in cases using fluorescent lighting and ordinary window glass does not filter out the ul-

traviolet rays, it is necessary for the librarian to initiate protective measures. To minimize the damage of the light, protective plastic sleeves especially made for this purpose may be used over the ordinary fluorescent tubes. Also available are fluorescent tubes with a special coating which eliminates the ultraviolet rays. Surprisingly, incandescent light is the least damaging to maps and is probably the least expensive lighting to use. One must not overlook the fact that light is also an ally in that it hinders the growth of fungi and routes vermin.

Vermin

The map librarian must guard against two main types of vermin: those rodents and insects which live in dark recesses of the building and emerge occasionally in search of food, and those invisible agents such as mold and fungi which live on and destroy library materials. Of the seventy species of insects attacking library materials, the most commonly found and easily recognized are silverfish, cockroaches and termites. Silverfish devour paper for the starch and gelatin content; cockroaches thrive on glue and paste; and termites will take possession of a drawer of maps and continue to eat until the contents are shredded and digested. Rodents, most often rats and mice, enjoy the seclusion and the warmth of map drawers and the abundance of available food in the form of paste, glue and paper which they not only eat but shred for nests.

Preventive measures for control of insects and rodents are necessary at all times. Professional exterminators making regular visits and simple, preventive steps taken by the librarian can eliminate these destructive forces. It is far easier and less expensive to prevent the appearance of rodents than it is to combat and exterminate them once they have established residence.

Mold and Fungi

Far more difficult to detect are the mold and fungi. Invisible to the naked

eye, and present in the air about us, they are quite harmless until they find ideal growing conditions, a humid, warm environment with subdued light and plenty of nourishment. Proper lighting and controlled temperature and moisture will discourage fungus growth. At the first sight of the powdery deposits characteristic of fungi on the surfaces of infected materials, positive action to correct the temperature and humidity is necessary, and all materials affected should be either brushed or vacuumed outdoors if possible. If neglected, the paper becomes stained and serious erosion occurs in the surface of the paper. The paper ultimately becomes soft and as absorbent as blotting paper, eventually reduced to a crumbling pulp.

One can distinguish between acid and fungus deterioration. Acid causes the paper to become brittle and to crack when folded. Paper attacked by fungi can still be handled and folded without breaking although it is soft and weak. Papers vary in their resistance to fungi depending upon the chemical treatment during the manufacturing process. Because the average librarian is unable to detect fungi resistant paper from non-fungi resistant paper, he should be prepared to prevent fungi growth by environmental control.

Foxing is the term used to describe the discoloration and brown spots seen in old paper. It indicates that at some time or other fungi have been at work. The best available information on foxing is to be found in a study done in 1935 by Thomas Iians and T. C. Beckwith at the Huntington Library in California (3).

Acid

Perhaps the most destructive unseen enemy in the library is acid. By comparison, the other foes may be easily detected and measures taken to eliminate them before damage has occurred, but the action of acid in paper often passes the danger point before it can be detected. Acidification of paper occurs during the manufacturing process, consequently, deterioration begins immediately, long before the item reaches the librarian. One

can clearly see the results of acidification in the paper produced in the period during and after the Civil War and into the 1920's. Even the little used maps of the period are brittle and crumbling. Fortunately, scientific research has come to the assistance of the library. Means of testing paper for acid content and processes for removing the acid from paper have been discovered, and the results are available in Cunha and Barrow. Once the paper has been deacidified, restorative measures are necessary. Deacidified maps may be strengthened by mounting them on high quality paper, backed with fabric, or in some instances laminated.

Storage

Deterioration of maps begins as soon as a map is made. The rate of deterioration depends on the environmental conditions, and the care and usage given each map. If the map is new and direct from the maker, the map librarian's job may require only cataloging, flattening and storing. Older maps usually require more careful attention. In either case, librarians must adopt a preventive maintenance attitude to keep the maps in good condition. The classic reference on the physical techniques for map handling is Clara LeGear's *Maps—Their Care, Repair and Preservation in Libraries* (4). It contains information on all aspects of map care except repair of acid and fungus damage.

The responsibility and care of maps begins when they arrive at the library. It is a good practice to store maps flat and with as few folds as possible. Maps usually come rolled or folded, and once removed from the shipping container, they should be flattened for storage. W. W. Easton recommends ironing the map to remove the folds (5). If the map is not needed for immediate use, I suggest that it first be placed on a clean flat surface under weights and allowed to remain there for two or three weeks. This simple procedure will remove most of the roll and folds and is to be preferred to the ironing process. The less contact the map has with heat, the bet-

ter, for heat accelerates the dehydration of the paper and lessens its durability. If necessary, cleaning and repair work should be completed before storing.

The map librarian should know both his collection and his clients before making the decision to back or laminate his maps. The British Museum learned through experience that it was false economy to file modern reference maps without backing them with quality paper or fabric. The constant use of these maps required repairs in excess of what the original backing would have cost. A good rule to follow is to back or laminate those maps used frequently or that are in a weakened condition and disintegrating. It is costly and unnecessary to back all maps. Proper storage and care will keep most maps indefinitely. Contrary to popular belief, good quality paper for backing will outlast fabric whose longevity is limited to between 20 to 30 years. Perhaps the future will find maps made on deacidified paper and laminated before they reach the library.

Proper storage is of great importance for it minimizes the wear and tear not only in patron use but in the retrieval and refiling. The best protective storage for maps is filing in acid-free folders in the horizontal drawers sometimes referred to as blue print or plan cases. It is generally agreed that map cases should be steel for durability and the drawers should be no more than two inches deep. The report on various types of map equipment including a list of the manufacturers of steel map filing cases written by Catherine Bahn (6) for the 1961 Special Libraries Association Committee on Standards, and J. Douglas Hill's (7) discussion on equipment for storing odd shaped maps, atlases, globes, plastic relief maps and rolled maps both present valuable data to be used when selecting map storage equipment. The most recent variation of the metal storage case resembles a chest-type deep freezer and houses over one thousand maps per unit. Each map has an individual acid free folder which is hung in a vertical position. It is more suited to the large size maps, but will accommodate smaller

sizes. These cases tend to be expensive and out of the price range of libraries on limited budgets, but for those who do not have map cases and whose budget limitations delay their purchase, a *temporary*, simple file may be made with plywood sheets and either 2" x 4" or 4" x 4" uprights. The plywood may be cut to any size specifications and will provide a solid flat storage surface. The maps must be protected from dust by inserting them in acid free, individual folders which absorb the wear caused by sliding the map in and out of the wooden shelves. Thrifty librarians can make folders of acid free paper which will prevent the transmission of acid from one map to another. Proper storage increases the longevity of maps by minimizing the handling required when the librarian withdraws and refiles the needed map. Thus money spent for proper storage facilities not only improves operating efficiency but also saves later expenses in restoration.

The Future

Modern technology will indeed have a great impact on map librarians. In these days of instant everything, maps are being produced by computers, so it can be assumed they will eventually be transmitted by means other than their usual form. With the computer, the medium could well be video tape. While books and newspapers have been microfilmed for several years, the microfilming of maps has lagged. There are reasons for this. Books may be easily microfilmed by almost any individual after simple instruction, but maps, by their very nature and size, need an expert photographer because each marking is information that must appear if the reproduction is to be of value. Yet the microfilming of maps must increase, for try as we may, we cannot accumulate original maps ad infinitum. Microfilming is one means of preserving these for posterity. It would eliminate significant problems and would make map handling easier for the user and the librarian. Problems of transporting would be minimized, and size

control could be governed by the reader. Not to be overlooked is economy: storage costs would be less in both space and money; packing and shipping costs would be less; maintenance would be minimal, and rare maps would become available to a wider clientele. Until the day when microfilming and computerization have eliminated the map problems, librarians must act to conserve the valuable and rare maps.

There is an abundance of information available on the preservation and maintenance of maps. The problems confronting the map librarian are not insurmountable. Familiarization with the source materials and application of the described procedures and accepted practices of preservation and maintenance will act to increase the longevity of the map holdings in his library.

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The Consumer Librarian

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■ Consumer librarianship is a fluid librarianship, for its content and method are determined by the fluctuating needs and varied concerns of the consumer movement. It would be impossible to establish rigid standards, but it is possible to determine basic guidelines and recommendations for those interested in the field. The problem of defining consumerism and the effect of definition on acquisitions policies are discussed. The

availability and types of resources for consumer information and the classification and arrangement of these materials, and the relationship of the consumer library to the agency or organization it serves are investigated. This developing branch of librarianship is an excellent laboratory for discovering new avenues of information retrieval and new methods of public service.

THE REVOLUTION in American education has indicated that the coming years in American society will witness a proliferation of new disciplines and departments—in some cases rising from interdisciplinary approaches and in others spawning from existing needs and concerns in modern society. An example of the latter is consumerism, the movement and science devoted to an analysis and comprehension of the “consumer society” and the means by which specific problems can be resolved, future trends determined, and the sometimes overt conflict between the profit-motive and consumer rights ameliorated. To these ends government agencies on the municipi-

pal, state, and federal levels have been established. That many of them are currently headed by celebrities is a testimonial to the “nowness” of consumerism and to a market that potentially includes every American. Even the very label “consumerism” is somewhat ethereal, and unsympathetic observers might label it a fraud for that reason. After all, who is a consumer? Betty Furness, former Chairman of the New York State Consumer Protection Board, pointedly responded to this question by saying that everyone is a consumer—not only those who purchase but also those who merely consume. And if the audience is so comprehensive, what of the products they behold and sometimes consume? Here too the answer is somewhat comprehensive for consumer goods include not only cereals and detergents, but also train fares and advertising techniques.

Such are the difficulties and problems

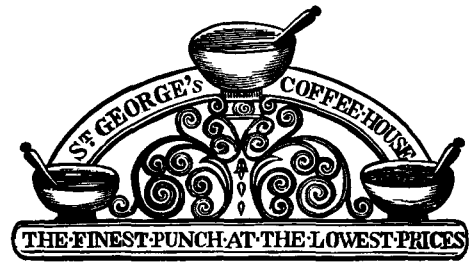
* This article was written by Warren Platt, librarian at Brooklyn Public Library, in his private capacity. No official support or endorsement by the Brooklyn Public Library is intended or should be inferred.

that face a librarian as he attempts to organize a library of consumerism. Indeed, many of the difficulties encountered resemble what any librarian might face when attempting to establish a specialized library dealing with a newly-formed and still somewhat ill-defined area. When called to organize a library of consumerism for the New York State Consumer Protection Board (a New York State government agency established in 1970 by Governor Rockefeller for the purpose of doing research in consumer issues and preparing bills on consumer matters that could be presented to the state legislature), I had little awareness that the position would be fraught with innumerable difficulties that fortuitously, however, would result in creative exploration of retrieval and acquisitions policies. Miss Furness (and others on her research staff of twelve) cautioned that the initial experience would be overwhelming; indeed, she was correct for the amount of material available and yet to be indexed and filed was immense.

Defining the Field

The first problem to be grasped in organizing a library of consumerism is that of setting a definition for the subject. Such a definition should be inclusive, making reference to an awareness of consumerism as that discipline involving multi-faceted aspects of man's existence and, at the same time, exclusive, limiting this comprehensive definition to those aspects of consumerism and the consumer movement more directly related to the time, place, aims, and functions of one's consumer agency.

A delicate balance must be maintained, therefore, between the concerns of consumerism and the consumer movement in general and the particular needs and outreach of a particular consumer agency or organization. But this principle must be a very flexible one and the librarian must be aware that an issue not directly concerning his agency this year might be one of major concern the next, and thus he ought to plan his col-



lecting accordingly. In initiating an acquisitions program for a library of consumerism the librarian is instantly faced with a wealth of materials ranging greatly in quality and covering nearly every type of publication. (Cost, of course, is an immense variable, and those with limited budgets ought to search carefully through government publications which often contain the best research in the field.) It is generally necessary to collect extensively in the field of environment and ecology which shares with consumerism similar goals and equally ill-defined limits. Pollution of rivers and air is indeed related to the health and welfare of consumers. The problem of auto exhaust fumes relates both to the environmental issue of air pollution and the consumer issue of product safety and reliability. It is also necessary to collect material on the state of the economy, labor-management relations, and industrial progress. Obviously an understanding of consumer credit presupposes some awareness of the current economic situation; the cost of living is dependent upon rising taxes and increased costs for goods that often reflect increased wages for public and private sector employees; and the multiplicity of goods that characterizes an industrial society raises important questions on product longevity, comparative shopping, and built-in obsolescence. Thus the consumer librarian must be aware not only of the consumer issues narrowly-defined and immediately at hand but also of the underlying societal problems and national trends that give rise to them.

The acquisitions program must also take the problems of locality and time

into account. Most consumer agencies possess well-defined jurisdictions as their area of interest. On the governmental level consumer agencies have been established on the state and city levels (and, increasingly, on the county level), and in the private sector consumer groups have been formed, generally on the municipal level, throughout the nation. (The budgets of the latter are generally too tight to afford professional library help and thus the librarians of the former can provide a vital service in supplying bibliography and reference aid to those who establish citizens' consumer groups.) Since the attention of a government agency is geared to the locality it serves, the librarian must give priority to collecting materials specifically relating to that geographical area. But example and analogy play a role here. A book on consumer legislation in Washington would be helpful for a consumer library in Florida whose agency is researching possible consumer legislation in that state. A pamphlet detailing investigations of employment agencies in New Orleans and suggestions for their regulation would be a helpful addition to the consumer library of any other city with a similar problem. A Michigan publication detailing consumer legal rights (and in layman's language) would be a worthwhile addition to the consumer education file of any consumer library. Even articles on environmental issues in a remote state might prove useful for possible secondary information given: the mention of local environmental/consumer groups, the statement of a public official on a given concern, or a court ruling that might have applicability in one's own jurisdiction.

In addition to consideration of place, the librarian must also have some awareness of the element of time. Too often we tend to think of the consumer/environmental movement as a mid-twentieth century phenomenon, grounded on the exposés of Ralph Nader and propagandized by the effective, though small, legion of consumer experts. To a great extent the issues that now dominate the movement are the peculiar by-products

of the failings of an overgrown society, but this must not obscure our awareness of the beginnings of the movement, that is, of the career of John Muir or the early days of Consumers Union. Such a perspective allows us to place the present controversies in proper proportion, with an awareness of the issues that preceded them, their disputation and resolution.

The Sources

With these broad recommendations in hand, the consumer librarian is then faced with the prospect of what sources to tap for his material. The recent emergence of the field, its ill-defined limits, and the question of its future definition all pose problems in the realm of acquisitions, especially in the field of books. The librarian needs to have a significant working collection but must also be aware of budget limitations and of the abundant availability of information in non-book form.

I suggest that the book collection reflect the current fluidity of the movement: that it be small, narrow in scope, and focusing on those issues that are the immediate concern of the agency.* The fact that hardback books on consumerism seem to enter paperback fairly quickly is a factor with which the librarian ought to be familiar. *Books in Print* is a suitable guide, but the comprehensive nature of consumerism forces the librarian to investigate a substantial number of subjects. A more convenient approach would be the *New York Times Book Review* where certain issues during the course of the year have sections on recent books in the environmental field.

The librarian will probably find that the greatest resource of material in a developing field like consumerism is to

* A minimal reference collection ought also to include the *Congressional Directory*, *Statistical Abstract*, and the *United States Congressional Manual*; materials covering similar information on the state and municipal levels ought also to be examined.

be found in the diverse sources of government publications, newspaper articles, periodicals, newsletters, handouts, and transcripts of speeches and reports. Government publications are a fertile source of information (both in research and regulations), and the consumer librarian would do well to be on the mailing list of many government agencies and departments. As librarian for the New York State Consumer Protection Board, I received mailings from other state government departments which were then complemented by mailings (predominantly press releases) from government consumer agencies in other states and in municipalities in and out of the state. The Office of Consumer Affairs (the federal agency) provides an indispensable guide to proposed consumer legislation in the Congress in the form of a monthly newsletter; the federal agency also provides a newsletter on state legislative activity in this field, but it, like the newsletter of Congressional activity, contains information generally a month old. In any case the information is sketchy and more complete information on the bills is to be obtained from the appropriate Congressional committee or state legislature. The press releases and newsletters of the Federal Trade Commission, the Federal Communications Commission, and the Food and Drug Administration are essential, providing information on the latest federal regulations and court decisions in their respective fields.

The consumer librarian will probably find that his best sources of information are the newspapers for their timeliness and magazines for their reports and analyses, particularly helpful to researchers in the preparation of speeches and to lawyers in the preparation of legislative proposals. A good sampling of magazines would include various trade journals (such as *Advertising Age*, *Progressive Grocer*, *Chain Store Age*, and *Supermarket News*), consumer magazines (such as *Consumer Reports* and *Health Pack Bulletin*), and consumer organization newsletters (such as *Consumer Action Now*, *Of Consuming Interest*, and Cornell University's *Consumer Closeups*).

Too often consumer advocates view the consumer movement as a monolithic effort against big business or certain factions thereof; the librarian can correct this attitude by supplying a diverse number of journals that reflect not only certain objections by the business community to some consumer demands but also an acquiescence to accommodate itself to certain other consumer proposals. Newsletters, especially those of militant urban groups like Consumer Action Now, produce some effective research and provide a resource for determining contemporary concerns in the consumer world and surveying the solutions proposed. All periodicals are valuable because of their frequent references to speeches and reports in the consumer field, thereby supplying the one major source for that material which, though important, is not widely distributed. Newsletters, in particular, are useful for notices of coming events in consumerism.

Organizing the Collection

Having surveyed the problem of acquisitions for a consumer library, one must next approach the task of organization. Book organization is not yet a problem and will probably not become so until the field matures and receives further definition, allowing a recognizable literature to be produced. Clips from newspapers and magazines are best arranged by subject (perhaps in manila folders) with cross-references to related areas; those clips that are of prominent importance and liable to be fitted in several categories ought to be cross-filed.

But such a system is primarily valuable for dividing the material into diverse subject categories that provide, at a glance, resource material on a particular area or concern. An index is an obvious necessity to obtain information on a particular event or to ferret out a specific article; it is also the only way to retrieve information that is unclipped and unfiled—for example, those periodicals directly relating to the consumer field which are preserved intact. The subject categories for the index should

be based on the nomenclature employed in the agency involved; the subject index provided in *Consumer Reports* might be consulted as a general guide. The index ought also to include names, organizations, and, where necessary and possible, events; in the first two categories it could thus serve not only as a guide to organizations and individuals in the consumer movement but also as a source for their statements and attitudes on particular issues and concerns.

Library Use

Prior to the establishment of the library the haphazard arrangement of materials discouraged their use and many staff members either used the resources of the public library or ordered appropriate materials from governmental and private agencies. The first alternative required a large amount of time and the second often resulted in the duplication of materials. With the establishment of a library the bibliographic and retrieval tasks informally allotted to other members of the staff fell to the librarian, thereby allowing a centralization of this activity. From the first the library was well used. However, staff members did reveal an ignorance of both the subject classification system and the index. An informal class would have been helpful as a means of acquainting them with the tools of information retrieval and how best to use them. The index allowed the librarian to discover explicit information or specific facts needed for staff research, and the subject files enabled staff members to browse leisurely through materials on a given area (for example, unit pricing and clear packaging were popular subjects). I also sought suggestions from staff and collected extensively in those areas that were the immediate concern of the Board. These materials were to become the foundation of bills designed for consumer protection or the basic research on which consumer education programs could be built. It was possible to advise individual staff members on an informal basis on the value and use of different

reference resources and what information one could expect and, equally important, could not expect from these tools. Major research projects often necessitated trips to the reference division of New York Public Library.

A large proportion of the Board's everyday activity consisted of research projects in the field of consumerism and the library filled an essential need by providing information on specific areas of concern. Cross-referencing of the subject files allowed the researcher to consult related areas of interest and the index provided access to specific points of inquiry. Research projects were varied and issued from consumers' needs and staff interests. Projects included packaging, unit pricing, food quality and content, insurance frauds, misleading advertising, ecological concerns, correspondence schools, and many more. A report on clear packaging of meat, for example, would entail research through



the appropriate subject files (meat, packaging, supermarkets), a glance at the index (to find suitable statements from prominent individuals or to discover information contained in materials other than those already consulted), and a perusal of reference tools that provide federal and state legislation (current and proposed) in this field or offer appropriate statistical information. This material, coordinated and amplified, thus became the basis for a research report which could serve as the Board's official statement or policy on a matter of consumer interest and, as a possible consequence, become the rationale or foundation of proposed legislation issuing from the agency.

On an average day roughly 20% of the subject folders were used; single issues of periodicals were examined about once every two days; reference tools were consulted intermittently depending upon research assignments. Staff use of the subject file was helpful in determining new subject categories or subdividing old ones. Because of the small number of staff and the developing nature of the library, formal borrowing techniques were not adopted. There was no date due procedure but materials circulated up to a week before being recalled. (They were normally returned within three days.)

The popularity of the library, then, attested to the fact that its establishment was long overdue; the disinterest of the staff in learning specific techniques of information retrieval attested to the fact long understood among librarians that people expect the librarian to perform this function when he is present.

In summary, the consumer librarian must be aware of the following trinity of factors when organizing a library of consumerism: (a) the need to set a definition, however tentative and flexible, for the subject of consumerism and that this definition must reflect both the limited needs of a particular agency and the wider interests of the national consumer movement as it is today; (b) the exploitation of periodicals, pamphlets, newsletters, and similar items, not only as sources of information per se, but also as guides to other resources in this expanding and amorphous field; and (c) the use of terminology in information retrieval that reflects accepted terms in the consumer movement and the nomenclature of a particular office or agency.

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Some Characteristics of the Literature on Music and Musicology

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■ An analysis of the literature on music and musicology by subject and bibliographic form and by language and country of origin is presented. Document titles were found to be relatively informative and a titles index is suggested as a

possibility in view of *RILM Abstracts's* tardiness. Historical musicology, especially 20th century subjects, dominates the material abstracted by *RILM* and English is the dominant language. *RILM* indexing is shown to be of high quality.

THE LITERATURES of the humanities and of the social sciences are normally considered to be less amenable to documentation and analysis than those of science and technology. Certainly far less attention has been paid to them. Music and musicology together represent an area in which there is an overlap between the humanities and the social sciences, and they are covered by an excellent documentation system, *RILM* (*Repertoire International de la Litterature Musicale*).^{*} The existence of this comprehensive system greatly simplifies the analysis and characterization

of the literature on music and musicology.

A sample was obtained from the 1967 *RILM Abstracts*[†] by taking every tenth entry from the subject index to vol.I, no.1 (I/1). The entry was noted together with its full citation (which indicates the publication form and *RILM* subject classification). On looking up the abstract, the author's country and the language of the article (and its summary, if

^{*} *RILM* has as its immediate objectives to produce "abstracts and computer-generated indexes of all scholarly writings on music appearing after 1 January, 1967" (1).

[†] *RILM Abstracts* (annual subscription \$24 for libraries, \$9 for individuals) appears very tardily and normally in four issues per year, the fourth issue devoted to cumulated subject and author indexes. Volume III covering 1969 (appearing 1971-72) contained 5,122 abstracts. Further details are available from the International RILM Center, City University of New York, New York, N.Y. 10036.

Table 1.

Country of Author's domicile	No.	%*	Language	No.	%*
U.S.	48	30.5	English	72.5	46
U.K.	15	9.5			
Canada	4	2.5			
Australia & N.Z.	5	3			
Germany	16	10	German	20	12.5
Austria	2	1			
France	11	7	French	15	9.5
Switzerland	2	1			
Czechoslovakia	11	7	Czech	6	4
			Slovak	3	2
Sweden	6	4	Swedish	6	4
Netherlands	5	3	Dutch/Flemish	8	5
Belgium	6	4			
Poland	4	2.5	Polish	4	2.5
U.S.S.R.	3	2	Russian	4	2.5
Denmark	3	2	Danish	2	1
Romania	3	2	Romanian	3	2
Japan	3	2	Japanese	3	2
Hungary	3	2	Hungarian	2	1
Uruguay	2	1	Spanish	3	2
Others	6	4	Others	6.5	4.5

* To nearest 0.5%

any) were added to the above record. Three analyses were performed on the sample. First the sample was analyzed by language and author's country given in his address as shown in Table 1. Because of the interest of one of the authors in the information content of titles, that facet was then assessed relative to the indexable information of the corresponding documents (2). Finally an attempt was made to assess the effectiveness of *RILM* indexing by examining the abstract for descriptors for important aspects of the document, which were then matched against the terms that had been indexed for that abstract. The indexed terms and descriptors were then divided into subject categories (as indicated in Table 2 and below).

Distribution by Subject and Bibliographic Form

From Table 2 one can see that about 50% of all the literature deals primarily with individual people and/or their works. These writings range from style studies and analyses, which appear in the first category ("Person and/or Composition"), to biographies and edited correspondence, which are included in the "Bibliography" and "Miscellaneous"

Table 2.

Subject Category	Terms in RILM Index		Important descriptors omitted from RILM Index	
	No. (i)	% (ii)	No. (iii)	% (of col. i) (iv)
1. Person and/or composition	126	30.0	9	7.1
2. Place and/or ethnic group	51	12.2	10	19.6
3. Compositional parameters (including form)	48	11.4	11	22.9
4. Instruments	26	6.2	2	7.7
5. Period and/or school or style	63	15.0	17	27.0
6. Aesthetics and philosophy	19	4.5	2	10.5
7. Bibliography, manuscript, forgery, etc.	29	6.9	3	10.3
8. Miscellaneous (includes biography)	58	13.8	3	5.2

categories. These materials are mostly concerned with composers, but some deal with performers, band leaders, teachers and even non-musicians. A great deal of attention is paid (especially among scholars) to individual composers and their work. Indeed, many scholars are known by the men they specialize in (e.g. a Monteverdi scholar).

The four other important categories of writing deal with place, time, instru-

Table 3.

RILM Classes (& Classification Nos.)		Vol I	Vol II	Vol III	Total	%
(01-12, 14-17)	*Reference and Research Materials	202	321	532	1055	8.8
(20-29)	Historical Musicology	1509	2403	2801	6713	56.2
(30-37)	Ethnomusicology	219	478	510	1207	10.1
(40-48)	Instruments and Voice	158	254	339	751	6.3
(50, 55, 58)	Performance, Practice and Notation	57	76	68	201	1.7
(60-68)	Theory and Analysis	77	124	110	311	2.6
(70-73, 75-79)	Pedagogy, Music and other Arts	85	217	317	619	5.2
(80-89)	Music and Related Disciplines	169	366	348	883	7.4
(90-95, 99)	Music and Liturgy	56	72	103	231	1.9
Subdivision of Musicology by Chronological Period						
(20 & 21)	Generalia and biographies	112	194	182	488	4.1
(22)	Antiquity	6	19	26	51	0.4
(23)	Middle Ages	93	151	148	392	3.3
(24)	Renaissance	129	259	182	570	4.7
(25)	Baroque	225	403	404	1032	8.7
(26)	Classic & pre-classic	187	297	313	797	6.7
(27)	Romantic (19th Century)	177	386	517	1080	9.0
(28 & 29)	20th Century	574	700	1031	2305	19.4

* Numbers in parentheses are the RILM classification numbers (01-99); gaps are for classes not yet allocated or for which no abstracts were received.

ments and compositional parameters. These are the concern of anyone dealing with analysis of styles or of individual pieces. Such analytical writings comprise the bulk of the literature, and these four categories have a large number of entries.

The rest of the entries are made of bibliographic subjects, aesthetics and numerous miscellaneous topics. There is a surprisingly large number of bibliographic articles. These range from the listing of current catalogs in *Notes of the Music Library Association* to thematic catalogs of cantatas.

There are not many entries under "aesthetics and philosophy"; far more articles discuss the mechanics of music than the meaning. The trend of technology and specialization exists in all fields, and is reflected in music by the predominance of analytical writings (discussing techniques and mechanics) over articles concerning the meaning and value of music in our lives. It is only in the Soviet-bloc countries that articles on aesthetics are predominant, and even some of these tend to be political rather than purely philosophical (if the two really can be separated).

Table 2 indicates the distribution of all items of indexable information, irrespective of whether they be major or minor themes of the document. A simple

method of determining the distribution of the major themes is to count the number of abstracts under each of the nine main classes of RILM.* This analysis is presented in Table 3. The dominance of the literature of music by studies of historical musicology is well illustrated by Table 3. The subdivision of historical musicology by period shows the relatively large volume of studies on the music of this century, which are, of course, supplemented by other studies of twentieth century musical phenomena which appear under headings such as pedagogy. Nevertheless, one third of the total abstracts deal with pre-twentieth century matter.

An analysis for publication form was made by examining every twelfth entry in the cumulative index for 1967 (vol. I/4) where the abstract number is suffixed by a code noting item type and source. The results are presented in Table 4. As might be expected, the proportion of articles is high. The proportion

* The RILM subject classes do not, of course, correspond with those of Table 2. For example, most of the documents of which a person (category 1 in Table 2) is the major theme occurred in RILM classes 22-29 (Historical musicology subdivided by chronological period).

of monographs (and also Festschriften) is somewhat higher than in the sciences, but in music there is a need (and a market) for book length works, especially on individual composers. *RILM* lists 31 publication forms but two-thirds of the items are covered by just two, periodical articles and monographs. Of the remainder, Festschriften (which are differentiated from monographs), dissertations and the several types of reviews are the most important forms.

The importance of dissertations was also checked by consulting *Dissertation Abstracts* for 1967 and the *Aslib Index to Theses Accepted for Higher Degrees in the Universities of Great Britain and Ireland*. The current American obsession with doctorates is reflected by the 202 doctoral dissertations in music noted by *Dissertation Abstracts* in 1967 compared with the total of 26 doctorates in music awarded in the U.K. in the two academic years 1966-67 and 1967-68. (During the same period 21 master's (or equivalent) degrees were awarded in music in the U.K. It was also noted that quite a number of the American doctorates were concerned with educational aspects of music.)

The total number of doctoral dissertations noted in volume I would be expected to be: (total number of abstracts) \times (fraction of doctoral dissertations from Table 4); i.e. $2532 \times 3.4/100 = 86$. Comparing this figure with just the 202 reported in music by *Dissertation Abstracts* indicates that the coverage of dissertations by *RILM* is far from comprehensive. The number of monographs, however (which are estimated to number ap-

proximately 350) is much larger than the number of new books (in Dewey Decimal Classification, 780-789) reported for 1967 by the 1968 *Bowker Annual* which gives a total (including imports) of 193 plus 59 new editions—figures which are very close to those given by *Whittaker's Cumulative Book List* (192 plus 48 new editions). Since several types of books such as Festschriften, facsimiles, and symposia proceedings are not included in the 350, one must therefore assume *RILM* covers a significant proportion of foreign monographs and/or goes well outside the limitations of Dewey classes 780-789. This assumption is readily confirmed by scanning the abstracts. It also notes many book reviews—an unusual feature in this type of abstracting service, but nevertheless a most useful one in this field.

Geographic and Language Distribution

The authors' countries and the languages of publication are shown in Table 1. In a few cases, articles had been printed in two or more languages simultaneously, in which case each language was counted as the appropriate fraction in Table 1 (e.g., 0.5 for each in a bilingual publication). They follow fairly predictable patterns and, at first sight, recall similar studies on the literature of chemistry, biology, etc. The United States is by far the largest producer and almost half the original documents (or their summaries) were in English. By comparison, in 1966 the US produced 30% of the literature abstracted by *Chemical Abstracts* and 55% of the chemical literature was in English (3). A difference from scientific literature is, however, the relatively small amount of the literature produced by the USSR and in Russian—21% for both USSR and Russian in the 1966 *Chemical Abstracts* (3). The second most prolific producer and language is Germany and German. (In science they have not ranked second since the 1930's.) The contribution from Japan is also remarkably low.

In spite of the surprisingly small con-

Table 4.

Form*	No.	%
Articles from periodicals (ap)	612	54.4
Articles from Festschriften (ae)	75	6.7
Monographs (bm)	145	13.7
Masters theses (dm)	42	3.7
Doctoral dissertations (dd)	38	3.4
Book reviews (rb)	72	6.4
Reviews of new editions of music other than scholarly (rn)	28	2.5
Other	118	10.4

* *RILM* code for item type and source is given in parentheses.

tribution from the USSR, the Eastern European countries produce a significant amount of literature (18% of the total). As in science, Czechoslovakia contributes a disproportionately large amount for the size of her population. The rest of Europe produces 41% of the total and thus Europe is the continent making the largest contribution to the literature of music (even though no one country produces more than 10% of the world's total). In contrast, South and Central America produce only 2.5% of the world's total. It is not certain whether this reflects a lack of activity in this field in Latin America or merely the greater difficulties which US libraries (and therefore abstracters) have in obtaining material from Latin America than from Eastern Europe. The output of scientific literature from Latin America is also very small (4).

The number of summaries written in a language different from the original was also noted. In the sample of 158 documents, 4 had summaries in English, 3 in German and 2 in Russian. Nine times out of ten authors wrote in the language of their country of domicile. In the above sample there were, however, 10 cases in which a different language had been used (German 4, English 2, Swedish 2, French 1, and Russian 1).

Information Content of Titles

As it was noted that the first two volumes were subject to considerable delays, the information content of the titles was investigated to ascertain whether a more rapidly produced titles index could be effective. Methods for assessing the information content of titles have been discussed elsewhere (2, 5), where it was concluded that the comparison of indexing terms with the titles of the corresponding abstracts afforded a rapid method of estimating the minimum amount of information irretrievable from a KWIC or similar titles index. The procedure also gives considerable insight into the effectiveness of the indexing (5). Having an average of three indexing terms per abstract, *RILM Ab-*

stracts is indexed in reasonable depth, and thus this procedure (2) appeared to be eminently suitable.

In previous work (2, 5) the indexing terms were divided into single facets and these were then compared against the title. The single facet was then classified according to whether it was: (a) identical with, or a syntactical variant of, words in the title; (b) a synonym of, or a related term to, words in the title, or (c) neither (a) nor (b). As it was anticipated that the proportion of (c) terms would be much larger than in scientific literature, the (c) class was subdivided four ways: (c1) the facet can be inferred by a musician reading the complete title;* (c2) the facet is reflected in the title of the publication (5) (e.g., A. Whittall, "A new starting point." *Opera* 18, p.285-288 (1968)—indexed under "Stravinsky, I., influence on opera," etc.); (c3) the facet has resulted from a too detailed analysis of the original publication, the facet indexed being only peripheral to the main intent of the original publication (see footnote to Table 5); (c4) the facet cannot be inferred from the title or citation and thus would be irretrievable from any form of (unenriched) titles index.

The numbers of each facet class found in a random sample of 158 entries are shown in Table 5. The sampling error (2) is estimated to range between 1.5% and 2.5%. Classes (a) and (b) together represent those documents which could be retrieved from a KWIC index or by an SDI service based on titles if all possible related terms were used (such a service would provide 61% retrieval). A further 12% (c1) could be retrieved from a titles index where the titles were arranged under broad subject headings and visually scanned, or from a collection of copies of journal contents pages.

* For consistency, a composer and his work were deemed to be one term whether or not one of the aspects was missing. For example, if "Mozart" and "Cosi fan Tutte" were two terms in the index but only "Cosi" appeared in the title, who would fail to infer "Mozart" from the title?

(Table 4, however, shows that the latter form would only cover 54% of the material abstracted by *RILM*.)

The attraction of a titles index is that it could be produced with much shorter delay times than those now current for *RILM*. The latest issue consulted was III/3 (Sep—Dec 1969) which arrived in the U.K. on Mar 3, 1972 and which covered literature mainly appearing in the last half of 1969. Delays in obtaining information in the field of music do not appear to be so critical as in scientific fields, since so much effort in both performance and study is devoted to music which is more than fifty years old.* Nevertheless, research workers in the field of music, no less than in any other field, wish to learn of the publications of any possible competitor at the earliest possible moment. (It is to be hoped, therefore, that *RILM* can make up a large part of its present two year time lag.) Because of the low price of *RILM*, any competing titles index may not be economically viable.

Distribution of Key Terms by Subject Category and the Quality of the Indexing

The abstracts of I/1 were followed by a list of keywords.† This enabled the indexing terms to be readily determined. The abstracts of the 158 document samples were then scanned for descriptors deemed to be necessary for retrieving important items of information (6). These descriptors were then compared with the *RILM* indexing terms and the number not reflected in these are noted by subject category in Table 2. While this is a subjective evaluation (as indeed are most indexing procedures), the overall

* Table 3 shows that only one third of the documents on historical musicology (18.6% of the total) deal with the twentieth century. † This practice was largely replaced in I/2 and I/3 by printing the key words in bold type in the text of the abstract and occasionally appending a list of "additional key words." (In volume II no key words are indicated.)

Table 5.

Facet class	No.	%
a	190	52
b	32	9
c1	45	12
c2	25	7
c3	54	—
c4	74	20
Total excluding c3	366	100

Class c3 is excluded from the percentage calculation since these were facets deemed to be of only negligible information content (see text) such that failure to retrieve the document would not be important.

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average of 13.5% of important terms not found is low enough to indicate that the overall efficiency of indexing by *RILM* is high. The last column of Table 2 does, however, indicate that the subject categories 5 (Period/School/Style), 3 (Compositional parameters) and 2 (Place/Ethnic group) are much more likely than the average to have important terms omitted from the index, while categories 1 (Person/Composition), 4 (Instruments) and 8 (Miscellaneous) are more comprehensively indexed than average. Categories 1 and 4 are the easiest to index since the documents are provided with a noun to describe them, e.g. Mozart, Manuscript Ivrea, violin, etc. In category 1 the number of index terms was approximately one-third more than the total number of descriptors which could be obtained from abstracts;‡ it is so easy and seems so useful to analyze for names. The main reason for the larger number of *RILM* entries in category 1 is the large quantity of articles on the history of a movement, instrument, place, etc., where several people made contributions to its development. In these cases, analytics are much needed and are well supplied by *RILM*. As there are not nearly

‡ In the other categories (apart from Miscellaneous) the number of descriptors derivable from the abstracts was approximately the same as the number of indexing terms (though some of the terms themselves may be different as shown by columns iii and iv of Table 2).

so many articles published on the instruments, techniques, etc. used in a style-period, etc. there are fewer analytics to be found in categories 2-7. When such articles have appeared, however, *RILM* seems to have analyzed them.

A surprisingly large number of items were found which were biographies of or news about, composers, musicians and even librarians from a given geographical area and which were indexed under the individual's name together with key words such as "biography," "life and works" but which omitted the national or ethnic origin that was the *raison d'être* of the paper. This is probably the prime cause of the high proportion of descriptors in column iv of Table 2 for category 2. This is no serious criticism of the indexing for a user looking for a particular composer's biography, etc., does not need the index to tell him the composer's national or ethnic origin. On the other hand, if the user were seeking information of, say, contemporary Belgian composers, he would not find an entry under Belgium.

The fifth category (Period and/or Style) is of tremendous importance to musicologists and even more so to students of music. It is an essential consideration in the study of any element in the other categories—instruments, forgeries and attributions, composers, aesthetics, etc. The question of in what period did the man live and in what styles did he participate are essential to an understanding of his art, be he composer or violin-maker. It is, however, the most difficult category to analyze and index. Labels which are so freely given by historians to periods and artist seem to vanish upon inspection, and distinctions between periods blur beyond the point of being useful. The difference between the Medieval and Renaissance styles has to be reduced to a chronological one; the distinctions between jazz, popular music, rock, folk, and country music have long since been destroyed. An index trying to find a period or style to match certain people with would be attempting the near-impossible. Consequently, many such tags are left out of the indexing

entry; this is probably a good idea as pigeonholing an article in one style or period might prevent it from being located in another style to which it might also be relevant. However, the omission of such entries would make it quite difficult for a user to find materials related by style or period, which are the first headings under which a researcher would seek articles on anything less specific or more inclusive than a single composer or instrument.

To alleviate this problem, *RILM* has come up with a very satisfactory arrangement concerning the abstracts themselves. The abstracts are arranged according to a scheme that includes categories for the various periods in music. This means that all of the abstracts on the nineteenth century, for example, are found together, giving access by (chronological) period to abstracts that might not have been so accessible in the index. The problem of labelling various pieces of music or their composers with style-names, whether for indexes or for subject-oriented classification schemes, has not been solved, and can probably never be solved satisfactorily, as each composer and each piece are unique.

Category 3 (Compositional parameters) also contains a high proportion of important descriptors omitted from the *RILM* index; this includes such subjects as harmony, counterpoint, sonata, etc. Sometimes a musical technique is difficult to label and would have misleading labels if it were done (for much the same reasons that one can never explain what makes a good piece). For the large number of items on a given musical form such as opera, such terms often need not be included in the entry as they can frequently be intuited from the rest of the entry (cf. facet class c1 in Table 5). Furthermore, under forms such as opera there would be too many entries for effective manual searching. They would, however, be important in any computer search and should therefore be included with the same thoroughness which characterizes the *RILM* indexing—spot checks indicated that all of the form terms were properly entered.

Conclusions

Several of the literature's characteristics, such as the dominance of the US, the greater importance of non-periodical literature than in science, etc. are not especially surprising; nevertheless, they are here quantified. The relative paucity of contributions from the USSR and Japan is unusual, and the information content of the titles was somewhat higher than expected, thus a titles index could be quite useful.

It is evident from an examination of a sample of its abstracts that *RILM* is an index designed for the specialist, which shows clearly that scholars write for other scholars to read and assume that their audience is an exclusive and elite one. Little of the literature is of much value to the listener or performer (except where he combines such a role with that of the scholar), thus *RILM* is of greater importance to the academic community than to the general public.

RILM Abstracts is an excellent subject index for music. It is accurate and quite detailed and the indexing terms are more descriptive of the documents than are their titles. One of the *RILM* index's strengths is that it does not rely on a thesaurus for its indexing terms. While such a control of indexing terms can facilitate searching and permit a large amount of automated indexing, it is a dangerous procedure in music. Most music avoids labels and the more comprehensive and detailed an index is, the more it has to move away from such labels and consider each document on its own terms.

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Teaching Special Librarianship

Some Current Approaches

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■ Teachers in courses in special librarianship at accredited library schools were asked to write résumés and evaluations of their methods. The majority of the respondents considered their courses to be a "type of library" course which was

comparable to the courses in public libraries and academic libraries. Some of the methods of teaching employed included the use of visiting lecturers, student projects, field work, visits, and simulation games.

HOW IS special librarianship taught in the accredited library schools? Teachers of these courses were recently asked to write résumés and evaluations of their methods, and the following is a summary of some of the ideas and approaches revealed by these reports.

The overwhelming majority of the respondents considered their courses to be a "type of library" course which was comparable to the courses in public libraries and academic libraries. They also considered that their courses stressed administration primarily.

Course Content

Kenyon Rosenberg (Kent) wrote of his course,

It is primarily directed to the practical problems of administration, book selection and the special services concerned with special librarianship.

Anthony Kruzas (Michigan) wrote:

General aspects covered in readings and lectures include: history, characteristics and functions of special libraries; qualifications, training and opportunities in special librarianship; special libraries organizations; types and varieties of special libraries; bibliographies, publications and reference tools related to the field as a whole; special materials; sources of new materials; arrangement and organization of materials; sources of information other than published materials. I believe that principles of good management and administration should be covered in a course which is not limited by "type of library" since the principles are common to all.

Martha Jane Zachert (Florida State) wrote:

The students have had an introduction to the principles of administration in a beginning course. The special libraries course is the application in an industrial, governmental or other institutional context. The sustained simulation is used

with one or more problems in each functional area.

Anne Piternick (British Columbia) said:

[The course] attempts to cover aspects of administration which are of particular importance to special libraries; detailed study of libraries serving special groups or subject areas is concentrated in student projects.

Wiley J. Williams' (Peabody) course includes "administration, organization, and services of special libraries and information centers, emphasizing the specialized nature of both readers' services and technical processes."

Robert E. Fidoten (Pittsburgh) wrote:

The approach is through an examination of management and administrative decision-making areas, e.g., objectives, staffing, budget, service functions, and evaluation. Each area is examined with a view to identifying the available alternatives to the administrator.

Irma Tomberlin (Oklahoma) said:

The course covers an introduction to special libraries and librarianship—history and development, characteristics, training and education, and possible future trends. We then move to principles of administration, and from that to specific functions and other activities in special libraries.

Beth Hamilton (Rosary) wrote:

The content is primarily directed at the student without previous special library experience, hopefully providing an understanding of the continually evolving concepts of special librarianship; demands and gratifications of special librarianship; an overview of employment aspects; some management theories and techniques; and a "nuts and bolts" approach to establishing one kind of special library.

Sarah Thomas (Catholic) said that her course was

An overview of special libraries, beginning with uses and their need for services; leading into how these needs are translated into a philosophy and program for the library, how they affect all administrative aspects such as budgeting, staffing, services, facilities and the like. Information services and their implications for the users are followed by a brief discussion of types of materials and processing techniques again related to user's needs.

Theodore Peck (Minnesota) wrote:

I attempt to provide a basic course in organization and operation of a special library. Practical approaches are stressed, and though trends toward automated systems and advanced services are mentioned, we concentrate on the small special library situation. My course emphasizes the industrial, technical library, but I assume that much of the course content applies to other special libraries too.

James Matarazzo (Simmons) said:

Students plan the services, physical layout, holdings, budget and other aspects of a simulated library during the semester. The content of the course is essentially student generated with the guidance of the instructor and in accordance with the description and problems in the model.

Doris Batliner (Kentucky) wrote,

It contains the following elements, under the following individual lectures: Introduction to special libraries; Budgets and staff; Sources; Classification and cataloging methods; Indexing methods; Literature searching; Patents; Reference procedures; Managing your staff; Managing yourself; Managing management; How to select a job. Four guests speak on Referral cooperative systems; How the technical user sees the library; Survey of a library system; and Public relations. The only outside work is the preparation of a progress report to management on the use of \$60,000 in setting up and operating a new library for one year.

Miriam Tees (McGill) said that her course is

A general introduction to special librarianship with emphasis on service to users. Topics covered include development of special libraries, especially in Canada, general sources of material, associations, public and technical services, budget, staff, planning the new library, information services, and automation, with heavy accent on the role and place of the library in the organization it serves.

Visiting Lectures

Visiting lecturers are used in some of the schools. Dorothy Smith (Case Western Reserve), for example, wrote, "I call upon experts in classification and cataloging to give this part of the course."

Theodore Peck (Minnesota) wrote:

The use of guest lecturers adds interest to the course and heightens its appeal. Special librarians from local libraries are brought in to cover various topics. These visitors have discussed problems of obtaining federal technical reports, indexing systems, and training of assistants.

Student Projects

Of student projects, Kenyon Rosenberg (Kent) wrote: that "Students are asked to prepare a listing comprising the basic collection for a library type."

Anthony Kruzas (Michigan) said that he requires:

One major project covering the entire semester representing independent research in one subject or activity field. The study includes the investigations of library facilities, associations, government agencies and research programs as well as bibliographies of reference materials for that subject. Book selection tools and programs in the organization of materials are also covered.

Anne Piternick (British Columbia) wrote:

Each student is required to work during the term on the specifications for a library to serve a special group. A dossier describing the library and its functions is turned in at the end of the term for credit.

Wiley Williams (Peabody) requires a term paper "in which students select a type of special library, examine the literature and make recommendations as to what to do to set up such a library."

Irma Tomberlin (Oklahoma) wrote:

Students are asked to do a term project which involves planning a small special library in a certain subject area. The students have considerable leeway in choosing subject areas and location of the library. They write a proposal and a justification for developing the library. In addition, they plan the quarters, the acquisitions procedures, cataloging and classification methods, description of services to be offered, and job descriptions for the staff of the library.

Beth Hamilton (Rosary) has two projects. The first is a content analysis of *Special Libraries* ads bringing focus to the ramifications of the field of special librarianship. The second project is a budget proposal. Guidelines are discussed in class, then submitted proposals are shared with the whole class.

Diane Butzin (Emory) wrote:

We have been fortunate to have three organizations which needed assistance in beginning a library at the time the classes were being conducted. Students have prepared plans and proposals for these libraries, combining what they knew with the needs of the organization.

Sarah Thomas (Catholic) said:

Projects are selected from ones identified as existing problems in libraries and information centers in the area. It is more like a work-study arrangement. The product from the study is whatever is needed in the work situation.

Theodore Peck (Minnesota) wrote:

My students are expected to read select readings from a list I prepared for them and give a brief oral report on the article. In addition, they make a brief literature search on a scientific or technical subject using at least five sources including abstracting services. The main project is a survey of a special library of their choice. A report is drawn up which describes in detail services and routines of the library so that a fairly clear picture is presented. Students enjoy this assignment since they can include their critical comments, and the special librarians whose libraries have been surveyed have been cooperative.

Sheila Bertram (Alberta) supplies her students with a number of articles on education for special librarianship. The students then prepare a thesaurus and index the material in various ways.

Visits, Field Work

Harold Holland's (Missouri) class visits university branch libraries and a variety of special libraries in other cities. The class also usually attends one SLA Chapter meeting during the semester. Wiley Williams (Peabody) spends forty per cent of his class time in visiting special libraries. Dorothy Smith (Case Western Reserve) has her students spend several hours per week in various medical libraries. They observe and then help the librarians with the actual work.

Theodore Peck (Minnesota) wrote:

One class visit is arranged each year to a group of libraries located in several adjoining office buildings in downtown Minneapolis. These include libraries in a bank, an investment firm, a utility company, an advertising agency, and a large food concern. On this tour students have an opportunity to see a special library first hand and to be able to talk informally with the librarian in charge. We usually schedule this trip midway in the course so that students have enough exposure to special library practice through lectures and readings

to be able to understand what they see on the tour.

Miriam Tees (McGill) wrote that her students in groups of two or three visit fifteen libraries and report in class on the special characteristics of each.

Student Reports

As far as student reports are utilized, Kenyon Rosenberg (Kent) requires his students to defend submitted budgets before a critical class.

Harold Holland (Missouri) wrote:

Each student specializes in the library of his chosen interest. As each aspect of library administration is covered each "specialist" is expected to contribute to the discussion in a comparative way. Written reports are called for—with the specific assignment varying from time to time.

Dorothy Smith (Case Western Reserve) requires student reports on bibliographic searching, comparison of basic textbooks, comparison of journals, and classification and cataloging.

Sheila Bertram (Alberta) wrote:

For each type of special library, an individual student prepares a general pre-visit report to inform fellow students and indicate special features to look for and a specific post-visit report leading a critical class discussion on what was actually seen.

Andrew Horn and Betty Rosenberg (UCLA) wrote:

Students may elect an intensive report on one type of public library (including field trips) or a series of four shorter reports on a series of public libraries (including field trips).

Simulation

Of simulations, Sarah Thomas (Catholic) said:

I am presently teaching the Post-

master's course using Martha Jane Zachert's Government Library Simulation model.

James M. Matarazzo (Simmons) also wrote:

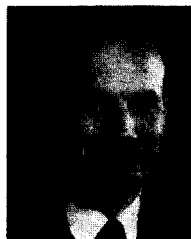
Professor Zachert has been kind enough to supply me with the content and materials of a course she teaches. After three class meetings where necessary introductory material is presented, the remainder of the course is taught utilizing the simulation method. It is my firm belief that the method is not only successful but advisable.

Conclusions

Creative and imaginative teaching appears to be taking place in special libraries courses at various schools. These attempts at more effective teaching deserve the approbation and attention of the profession.

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Use of the UDC in a Mechanized System

Its Application in a KWIC Program

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■ The Universal Decimal Classification is the main classification scheme used in both library and documentation functions at the Central Information Department. Mechanization has been introduced in the preparation of UDC and alphabetical indexes using a KWIC Program to access directly documenta-

tion files. A special feature of the system is that the KWIC serial number = the program sorting number = the encoded UDC form = the storage or shelving number. Thus, encoded UDC numbers make the use of a special UDC sorting (sub)program unnecessary.

THE "CENTRALE INFORMATIE AFDELING" (Central Information Department) of Bronswerk N.V., hereinafter to be referred to as *CIA*, was established in 1961 and comprises all library and documentation functions. The paramount objective has always been to support the transfer of (recorded) knowledge by seeking effective ways to introduce it into industrial practice. Thus the *CIA* tries to locate, collect, index, store and distribute the most important items of literature from foreign and Dutch publications. These publications are periodicals (and other serials), books (external), annual reports, special bibliographies, etc.

In general, the *CIA* supplies information by making these documents accessible to its users, and carries on bibliographical research.

Bronswerk is one of the seven working companies of the VMF/Stork-Werkspoor Group of Companies (25,000 employees). Some of the fields in which

Bronswerk specializes are the design, construction and installation of equipment and plants for cooling, warming, heating, drying, filtering, conveyance and storage of air, gases and liquids for industrial and consumer applications. Our specialized divisions produce air conditioning, heating and refrigeration equipment, petrochemical equipment, heat exchangers, pressure vessels, boilers, and equipment for environmental pollution control.

These divisions and our unique Air Conditioning Research Center (for simulating indoor climate conditions) require the necessary information to keep pace with demands.

Documentation "Philosophy"

The multi-disciplinary working area of the company makes it necessary to cover a wide spectrum of information disciplines. This could be done by means

of reference works, abstract journals, abstracting services and computer-based services, but these media alone are not sufficient, because they do not really conform to the company's specific demands.

We cannot afford to ignore the particular knowledge in our special field contained in current literature—the small but selected and essential part of which we can be aware (although we realize quite well that we cannot cover everything ourselves) so the literature must be classified and indexed according to the company's specific approach, to guarantee company-oriented accessibility. Of course abstracting services are not ignored, but they are considered a welcome supplement rather than a main information source, although abstracting services are the only information sources for our general and subordinate fields.

It does not seem worthwhile or economically justifiable for a particularistic classification scheme or thesaurus to be developed within the company's information services budget, particularly since such thesauri already exist, and especially because the Universal Decimal Classification is available.

Universal Decimal Classification (UDC)

The UDC is a ready-made, already existing worldwide classification system and indexing language, continuously updated, and representing a vast investment in time, money and intellect by the FID (Fédération Internationale de la Documentation). One of the outstanding advantages of the UDC is its language-independent character, enabling international exchange and cooperation. In fact, the recent UNISIST Report suggests UDC as the classification system for the world. Refer to Freeman, Stüdeli, Hindson, and others (see References) for the technical feasibility to use UDC in mechanized and automated systems, and the nature of UDC with respect to these systems.

Classification is done as specifically and deeply as possible from the UDC Full Editions, using facets and auxilia-

ries where necessary to make the documents accessible according to specific needs and leading to both a direct query response and selective dissemination. We also try to prevent reclassifying, as much as possible, because an assigned UDC descriptor after some years represents too many documents and as a result is no longer selective. Thus, more time and money are spent at the input stage to assure an immediate query response, than at the query stage to prevent waiting time. This seems to be a logical consequence for a service department.

The Bronswerk UDC/QUIC-System

The Bronswerk UDC/QUIC-System, hereafter referred to as BUQ, has been based on the IBM/QUIC-Program for preparing KWIC (Keyword-in-Context) indexes.

The objectives of the BUQ system. The information explosion has caused some question as to the present adequacy of the services of the CIA in meeting the specific requirements of its users. It was necessary to determine how to keep pace with the rising demands for library services.

The primary objectives were: a) to develop a system for alerting the staff to current literature, relevant to their interests, at moments in which they have time to browse (to consult the files); b) to collect items the staff would otherwise have to locate themselves; and c) to relieve the staff of wading through journals and periodicals, in addition to reading completely a number of key journals.

We achieved our objective by a) distributing a draft subject list together with a questionnaire for extensions and alterations. The employees could thus specify their particular field of interest, which the CIA translated into UDC numbers; and, b) seeking critical feedback as the staff helped to improve information sent, thus enabling CIA personnel to achieve an ever greater selectivity and efficiency.

Other objectives were: d) to assist information users in a better understanding of the possible means of using the

information services, by bringing the documentation closer to them; e) increasing access to the collections; f) creating direct-access document files; g) increasing internal efficiency by filing documents difficult to classify under one heading (UDC number), while more specific descriptors can be found in the KWIC index. For instance (Figure 1): organizational development . . . 65.01"71"000 . . . R0750; h) storing documents which are unambiguously classified by just one UDC descriptor, mostly related to our own or our competitors' products.

The reason that the QUIC-program was chosen instead of the more advanced KWIC/KWOC programs is the short identification field for each record on a punched card. In that case UDC numbers could be incorporated (at the 61-72 positions) without affecting the title text field. With the following title card input format

<i>positions</i>	<i>field</i>
01-60	Title
61-72	UDC number
73-75	Program functions
76-80	Identification number

it can be arranged so that record identification number = KWIC serial number = program sorting number = encoded UDC number = shelf list number.

Titles

A title in the BUQ system represents the cross-section of a file of documents with the same contents and is in fact a surrogate of the titles of the filed documents. The KWIC index is compiled from these surrogate titles.

Every title in the system consists of one or more assigned descriptors in a natural language. These descriptors are directly related to the text in the UDC schedules or assigned to the appropriate heading according to our point of view. We use for instance (Figure 1):

Peter principle, function evaluation
65.015300000

but in the UDC schedule (BS1000 [65/651 + 657/659]: 1968, p.8) we can read

Job evaluation, job grading, work
assessment 65.015.3

So we also assigned the concept "Peter Principle" to this UDC number.

UDC Descriptors

The UDC descriptors have a fixed length of 12 digits (as prescribed by the QUIC system) and shorter numbers are completed with zeros. The UDC numbers have been translated into the identification numbers in such a way that the sequences of the identification numbers and the UDC numbers are equal. As a

Figure 1. Bibliography

BEHAAGLYKHEID PRODUCTIVITEITSVERHOOGING DOOR AIR CONDITIONING	628670000000	R0670
INTEGRATED AIR CONDITIONING SYSTEMS (VERLICHTING PLAFOND)	628979000000	R0680
BESCHRYVINGEN SCHEEPS-AIR CONDITIONINGSYSTEMEN	629124697900	R0690
SCHEEPSBOUW EN SCHEPEN# DOKUMENTATIE EN INFORMATIEBRONNEN.	629124002000	R0695
ONTLUCHTING(VENTING) TANKS VAN TANK-SCHEPEN+ EXPLOUSIEPREVENTIE	62912.01152# /	R0700
QUEEN ELISABETH QE2	62912340E200	R0710
TANKERS LPG NPG AARDGAS-TRANSPORT	629123560000	R0720
RUIMTEVAART	629700000000	R0730
KASSEN KASKLIMAAT	631544400000	R0740
MICROWAVE OVENS	643760000000	R0745
ORGANIZATIONAL DEVELOPMENT# AANPASSING FLEXIBILITEIT	65.01=71=000	R0750
AUTOMATISERING# SOCIALE EN MORELE ASPEKTEN.	65.01156.009	R0755
SYSTEEM-ANALYSE(SYSTEMS ANALYSIS)	65.0121/.200	R0756
NETWERK PLANNING(PERT CPM MPM PM SCRAPP).	65.0122(0842)	R0758
CTS -GESSEL V	65.0122(0842)	R0758
→ LANGE TERMYN PLANNING PROGNOSES FORECASTING	65.012230000	R0760
MANAGEMENT	65.012400000	R0770
MANAGEMENT BY EXCEPTION MBE	65.0124MBE00	R0773
MANAGEMENT BY OBJECTIVES MBO	65.0124MB000	R0774
MIS IMIS MANAGEMENT INFORMATION-SYSTEMS	65.01245/.46	R0780
BRAINSTORMING WERKGROEPEN VERGADERINGEN	65.012630000	R0790
→ ORGANISATIESTRUCTUREN WERK-STRUCTURERING	65.014000000	R0800
PETER PRINCIPE,FUNCTIE EVALUATIE	65.015300000	R0810
GEGEVENS EN LYSTEN VAN DE GROOTSTE FIRMA'S	65.017400000	R0820
ARCHIEVEN REGISTRATIE TEKENINGENARCHIEF LICHTDRUKKERY	651500000000	R0830

result of these equal sequences the bibliographical list, in the order of the identification numbers, represents the UDC authority file, which is the list of all UDC descriptors actually used in the system. This authority file is used to classify new documents. It is also used as a shelf list by numbering the files in accordance with the identification numbers. The identification numbers represent the encoded UDC numbers, used for other purposes too, thus avoiding a special UDC sorting program. The natural UDC sorting order is not logical for computers, and the computer produced order will be different for every computer (configuration).

Coverage of the BUQ System

We now maintain over 500 different files together with a card file with over 200,000 index entries. By coordinated and multifacet indexing it is also pos-

sible to locate a BUQ file document under another heading in the card file, as we may assign various entries to a document.

Experiences with the BUQ System

A copy of the KWIC index (Figure 2) was sent to each employee, together with an introduction letter in which each one was advised to scan the index by using his appropriate interest headings as search characteristics; or scan the index only at the moment at which he really needed certain data. The answers had to have the following form.

I want:

- to see periodically file number . . . and I will make a proper selection of the filed papers of which I should like to have a hard copy
- to have a duplicate copy of the complete file number . . . and a sub-scription for additions

Figure 2. KWIC Index

'PERS.' NOT INDEXED			
R0635 .#	PERSEN EXCENTER- EN KRUKPERSEN	621979000000	
R1333 RSEN#	PERSEN VOOR OLIEZAAD SCHROEFPE	6651.0330000	
R0638	AFKANT-PERSEN.#	621981620000	
R0432 HTECHNIEK.#	PERSLUCHT-LEIDINGEN EN PERSLUC	62154.006800	
R0432	PERSLUCHT-LEIDINGEN EN PERSLUCHTTECHNIEK.#	62154.006800	
R0863 #	ENQUETES ONDER HET PERSONEEL (SPEC. HOGERE PERS.)	6583.0121200	
R0864 EM#	BEDOORDELING VAN HET PERSONEEL BEDOORDELINGS INTERVI	6583.0180000	
R0758	NETWERK PLANNING(PERT CPM MPM PM SCRAPP).#	65.0122(0842	
R0810 IE#	PETER PRINCIPE,FUNCTIE EVALUAT	65.015300000	←
R0990	MARKETING-GEGEVENS TBV. PETRO-CHEMISCHE INDUSTRIE#	6588:6600000	
R0170 RBCN PROCESSING#	PHYSISCHE GEGEVENS UIT HYDROCA	53.0817HP/PR	
R0160 TEN#	PHYSISCHE GEGEVENS STOFCONSTAN	53.081700000	
R1571 N#	EEN-KANAAL(ONE-PIPE) AIR CONDITIONING SYSTEME	697922213100	
R1577 N#	VIER KANALEN (FOUR-PIPE) AIR CONDITIONING SYSTEME	697922213400	
R1575 N#	DRIE KANALEN (THREE-PIPE) AIR CONDITIONING SYSTEME	697922213300	
R1573 N#	TWEE KANALEN (TWO-PIPE) AIR CONDITIONING SYSTEME	697922213200	
R0680	ITIONING SYSTEMS (VERLICHTING PLAFOND)# INTEGRATED AIR COND	628979000000	
R0010	FUTUROLOGIE PLAN 2000#	001'313'0000	←
R0760	LANGE TERMYN PLANNING PROGNOSSES FORECASTING	65.012230000	
R0758 P).#	NETWERK PLANNING(PERT CPM MPM PM SCRAP	65.0122(0842	
RWL18	LUCHTVERONTREINIGING PLANTEN/ PLANOLOGIE GROENZONES INVLOED	7124:6321500	
BWL18	INVLOED LUCHTVERONTREINIGING PLANTEN.# /ANOLOGIE GROENZONES	7124:6321500	
R1150	VCOORUITZICHTEN/ APPARATENBOUW PLANTS(INVESTERINGEN,PLANNING,	66.013500000	
R1140	CHEMISCHE FABRIEKEN CHEMICAL-PLANTS# BOUW VAN	66.013500000	
R1380	KUNSTSTOFFEN PLASTICS#	678000000000	
R1249 S MET BAFFLES & GEPEFOREERDE	PLATEN.# /LEN, STOF EN DRUPPEL	66.074200000	
R1470	CONVECTOREN PLINT#	697355.02292	
R0758	NETWERK PLANNING(PERT CPM MPM PM SCRAPP).#	65.0122(0842	
R0600	PNEUMATISCH TRANSPORT#	621867800000	
BWL07 R EN AFVAL-WARME-#	THERMAL POLLUTION LOZING VAN KOEL-WATE	62819:62-713	
R1378	GLASVEZEL VERSTERKT POLYESTER GVP.#	677521:67867	
R0530	POMPEN#	621657.69000	
R0633 SNYDEN.#	PONSEN PONSMACHINES PERFOREREN	621961000000	
R0633 .#	PONSEN PONSMACHINES PERFOREREN SNYDEN	621961000000	
R0440	SCHROEF-COMPRESSOR:ROTARY POSITIVE DISPLACEMENT#	62157.041:62	
R1120	RECLAME PR PUBLIC RELATIONS MERKEN#	659000000000	
R1405 #	PREFAB PREFABRICAGE IN DE BOUW	69.002200000	
R1480	LUCHT,WARMLUFTHEIZUNG KANALEN-PREFAB-LUCHTVERHITTERS# /HETE	697383.00220	
R1405	PREFAB PREFABRICAGE IN DE BOUW#	69.002200000	

- a new file opened with the title. . . .
- the collection and the acquisition stopped for the number. . . .

We do not supply a loan of these files, but provide instead a photocopy of the full papers concerned. The ease in scanning entries on a page, the portability of the KWIC indexes and the duplicated files concerned, the possibility of distribution to branch libraries or subsidiary companies, together with the easy consultation of the files at the *CIA*, have contributed to the popular acceptance of our BUQ system.

When our employees still ask us: "Why do we have to wade through so many items?" we answer: "Verba volent, scripta manent" (Words decay, but records are permanent).

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CHAPTERS & DIVISIONS

Boston—The Chapter cruised Boston Harbor aboard a Bay State-Spray Cruise Ship on May 25. After the business meeting the members visited the New England Aquarium.

Cincinnati—The Chapter met Apr 21 at IBM, Lexington, Kentucky, to see a demonstration of a magnetic card selectric typewriter. Tours of the scientific and engineering libraries were provided. Dr. Clifford Cremers (professor, University of Kentucky) discussed NASA's Apollo Program.

Cleveland—At the Chapter's Apr 19 meeting, John C. Corfias, President of Dyke College, spoke on "The Librarian as a Leader."

The Chapter met May 10 at Preformed Line Products Company Research & Engineering Library and Center. Tours of the library and laboratory were held. The program and demonstration featured "The Termatrix and Its Applications."

Dayton—The Chapter met May 4 to hear Donald Paul, Project Director of Miami Valley Library Organization (MILO), discuss that organization.

Florida—The Chapter met Apr 28 with the Florida Library Association. A Technical Services Roundtable was held in the morning. Dr. Edward L. Katzenbach, Jr. (New York Institute of Technology) spoke on "New Approaches to Education." Discussion groups and a business meeting were held in the afternoon.

Illinois—The Chapter met Apr 19 to hear Herman Osborne, Atlantic Richfield Co., speak on "The Small Library and the Computer."

Indiana—A joint meeting was held Apr 22 with the Indiana Library Association College and University Roundtable. Morton J. Marcus (Indiana University Graduate School of Business) discussed "INDIRS—Indiana Information Retrieval System." The luncheon speaker was Charles N. Busha (assistant professor, Indiana University Graduate Li-

brary School) who discussed "Repression or Freedom: Censorship vs. the Freedom to Read." William L. Corya (assistant professor, Purdue University Libraries) spoke on "State Technical Services Act."

Louisiana—Dr. Martha Jane Zachert spoke on "The Changing Environment for Information Service" at the Chapter's Spring Meeting, May 12-13, in Biloxi, Mississippi. Other featured speakers were Mrs. Mary Fleming and Wallace F. Brown, both of the Mississippi Test Facility, and Dr. James P. Schweitzer, Louisiana State University Center for Wetland Resources.

Montreal—John Richmond, literary editor of the *Montreal Star*, was guest speaker at the Chapter's May 17 meeting in celebration of International Book Year.

New Jersey—Richard J. Sullivan, Commissioner, New Jersey State Dept. of Environmental Protection, addressed the Chapter Apr 18. His topic was "Environmental Protection in New Jersey."

"Liberty Tree" Planting Ceremonies were held Apr 28 (National Arbor Day's Centennial) by the Chapter's American Revolution Bicentennial Committee. Planting was done at Rutgers University and at New Jersey State Library.



(l. to r.) Helen Hester, Ruth Pravetz, Ruth Lockwood and Alfred Anzalone at the "Old Barracks," New Jersey State Library, Trenton.

New York, Documentation Group—The Group held a Seminar on the Fundamentals of Documentation Apr 28, 1972. Speakers and panelists explored the intellectual, philosophical and methodological aspects of documentation.

The Group has sponsored the second edition of its survey of *Automated Functions and Equipment in Libraries and Information Centers of Greater New York*, compiled and edited by Martha H. O'Leary. It had been published as an appendix to the 1972 edition of *Special Libraries Directory of Greater New York* and is now available as a separate publication.

New York, Picture Group—A tour of the private library and picture collection of Frederick Fried was held May 11. The library specializes in such subjects as cigar store figures, slot machines, shooting galleries, circus memorabilia, etc.

Oklahoma—A rap session on magazine subscription acquisition was held Jul 21.

Pacific Northwest—"Archives: Their Establishment and Maintenance" was the topic of the Chapter's May 13 meeting. Richard C. Berner (university archivist, University of Washington) and Richard D. Smith (assistant professor, School of Librarianship, University of Washington) were speakers.

Four *National Library Week* projects were aimed at the impact of the "information explosion" on people in business, industry and government. These were: a major display in the lobby of the Seattle-First National Bank Building; radio spot announcements and a fifteen minute interview with two Seattle librarians; a news release to local newspapers; and an article submitted to "Seattle Review."

Pittsburgh—An information reception and cocktail party was held May 9 to entertain a group of visiting foreign professional librarians. They had been attending a seminar on American librarianship at the University of Pittsburgh's Graduate School of Library and Information Science.

Southern Appalachian—The Chapter met Apr 21 at Oak Ridge Country Club to hear Dr. Gary Purcell speak on "The Graduate School of Library and Information Science."

South Atlantic—A short course on design

and development of small library/information systems was held May 3-5. The course was sponsored by the Chapter with the Price Gilbert Memorial Library and the School of Information and Computer Science, Georgia Institute of Technology, and was conducted by the G.I.T.'s Department of Continuing Education.

Southern California—Alan Oddie, Pyramid Films, Santa Monica, discussed some provocative experimental films at the Chapter's Apr 26 dinner meeting. Short films were shown.

Toronto—Burton T. Richardson, an Associate of P. S. Ross and Partners at the Toronto Office, addressed the Chapter's Annual Meeting May 16. An expert on Canada's political and artistic development, Mr. Richardson spoke about many famous Canadians.

Transportation—The "Ad Hoc Safety Information Seminar" changed its name to "Transportation Safety Information Committee" at a meeting in Washington last January. Robert W. Gibson, Jr. (General Motors Research Laboratories) was elected Chairman of the Steering Committee.

Upstate New York—The Chapter held a luncheon meeting Apr 14 in Buffalo. Preceding the luncheon, the Science and Engineering Library, State University of New York at Buffalo, was open for a demonstration of video tape instructional facilities.

An all-day program on "Data Bases in the Sciences" was held Sep 15 at Rochester Institute of Technology. The program was sponsored jointly with ASIS and Rochester Regional Research Library Council.

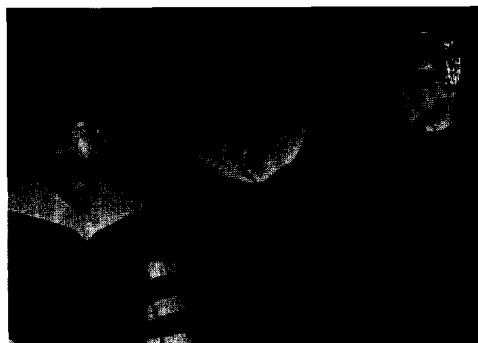
Virginia—The Chapter co-sponsored (with Virginia Library Association and the State Library) a seminar on the role of librarians as professional managers. The seminar, held Apr 27-29, was conducted by the University of Virginia's Graduate School of Business Administration.

Wisconsin—The Chapter's Apr 17 meeting was co-sponsored with Wisconsin Microfilm Association and the University of Wisconsin Extension Department. The topic was "Microfilm Seminar for Special Librarians."

A tour of the new Research Center and Library, Kimberly-Clark Corp., was held May 20.

SLA President Congratulates Library School Graduates

SLA President Edward G. Strable presented the commencement address at Rosary College's summer graduation ceremonies (River Forest, Illinois). The Graduate School of Library Science awarded 76 MALS degrees. Mr. Strable is pictured with (l.) Sister Laretta McCusker, dean of the Graduate School of Library Science, and (r.) Sister Candida Lund, president of Rosary College.



In Memoriam

Ward Blanchard, librarian, Ohlone College, Fremont, California . . . on Jun 8. He had been actively involved in both public and academic library matters, particularly community colleges. A member of San Francisco Chapter.

Rosalind M. Dean, chief librarian of the U.S. Corps of Engineers . . . on May 10. She had long been active in the Greater St. Louis Chapter and was Chapter president in 1968-69. The Chapter sent a memorial gift to the SLA Scholarship Fund in her honor. A member of SLA since 1957.

Arch C. Gerlach, chief geographer of the U.S. Geological Survey and president of the Pan American Institute of Geography and History . . . on May 20. He had previously been chief of the Map Division, Library of Congress. A member of SLA since 1947.

Jean K. Taylor, retired head, Business and Technology Department, Cleveland Public Library . . . on Apr 19. A member of SLA since 1932.

Eugene Urban, librarian, Inland Steel Research Library, East Chicago, Indiana . . . on Jan 29. Mr. Urban had also held a position with the Translations Center at the John Crerar Library, Chicago. A member of SLA since 1961.

Ena L. Yonge

Ena L. Yonge, Map Curator at the American Geographical Society for 45 years, died Dec 31, 1971, in Boynton Beach, Florida. Born in Bangalore, India, of British parentage, she was brought to the United States by her mother at the age of nine. In Jan 1917, she was engaged as an assistant in the Map Department, and on returning from her summer vacation, she found that due to the exigencies of World War I, the two men on the staff had departed, and she was the sole staff member left. During her regime the number of maps in the collection increased from 37,000 to 278,000—a prodigious accomplishment, most of it done single-handedly.

Miss Yonge was a pioneer in the field of map librarianship and was of great assistance to others who entered the field. She was very active in founding the Geography and Map Division of SLA and served in many capacities in that organization.

Over the years she graciously and effectively served thousands of map users in personal consultations, as well as by letter and telephone. Her writings were published in both geographical and library periodicals, her summaries of atlases being of particular interest. In 1968 the American Geographical Society published her book, *A Catalogue of Early Globes Made Prior to 1850 and Conserved in the United States*. Honors which came to her included corresponding membership in the Coronelli-Weltbund der Globusfreunde (Vienna), naming of the Ena L. Yonge Atlas Room at the American Geographical Society, and receipt of the Honors Award of the Geography and Map Division in 1959.

NORDIS FELLAND

Nominations for 1973 SLA Awards

Nominations for two SLA awards are due by Jan 3, 1973. Individuals, as well as Chapters and Divisions, may submit nominations. All nominations must be completely documented within the definitions of the purposes of the two awards. Forms and instructions for nominations have been distributed to all Chapters and Divisions. Additional forms are available from the Association's New York offices.

The SLA Professional Award. The highest recognition granted by this Association is awarded after consideration of *all significant contributions made to librarianship and information science*. The definition of the SLA Professional Award is:

"The SLA Professional Award is given to an individual or group, who may or may not hold membership in the Association, in recognition of a specific major achievement in, or a specific significant contribution to, the field of librarianship or information science, which advances the stated objectives of the Special Libraries Association. The timing of the Award shall follow as soon as practicable the recognized fruition of the contribution."

The SLA Hall of Fame. In documenting nominations, the following criteria for eligibility to the SLA Hall of Fame should be remembered:

"SLA Hall of Fame election is granted to a member or a former member of the Association *near the close or following completion of an active professional career for an extended and sustained period of distinguished service to the Association in all spheres of its activities (Chapter, Division, and Association levels)*. However, prolonged distinguished service within a Chapter, which has contributed to the Association as a whole, may receive special consideration."

The basic purpose of the SLA Hall of Fame is to recognize those individuals who have made *outstanding contributions to the growth and development of Special Libraries Association—as a whole—over a period of years*.

Mail completed forms to: Florine Oltman, Chairman
SLA Professional Award and Hall of Fame Committee
Air University Library
Maxwell Air Force Base
Alabama 36112

Revised Membership Renewal Notices for 1973

Renewal notices for 1973 membership will provide space for both the home address and the business address of members.

The library addresses will be used in the preparation of the 1973 Membership Directory. For many years, many SLA members have complained that business addresses do not appear in the Directory. SLA's old equipment did not have the capability of handling both a home mailing address and a business address for a directory listing. Our System/3 now gives us this capability. All SLA members are urged to supply both addresses. Mail to members, including Special Libraries, will still be addressed to home addresses, if so requested.

HAVE YOU HEARD ?

Social Action Case Studies

Profiles of Involvement is a three-volume resource compendium, in case study format, of social action programs sponsored by American corporations. The book lists 535 corporate programs, and outlines a number of non-profit organizations and federal government programs. The work is available for \$50.00 from Human Resources Network, 2010 Chancellor St., Philadelphia, PA 19103.

GLO Week

"Get the Lead Out Week," Nov 5-11, is sponsored by American Oil Company. Buttons, stickers, posters are available from GLO Week, Rm. 1654, 910 S. Michigan Ave., Chicago, IL 60605.

Metric Conversion Card

The National Bureau of Standards has prepared a plastic metric conversion pocket card which contains the minimum data needed for conversions from customary to metric units and vice versa. The NBS Special Publication 365 is \$0.10 each, \$6.25 per 100. Order prepaid from Supt. Docs., U.S. Govt. Printing Office, Washington, DC 20402, or local U.S. Dept. of Commerce Field Offices as SD Catalog No. C13.10:35.

Science Bibliography

Science for Society: A Bibliography, 3d ed., includes new references to articles and books from 1971 and early 1972. The price is \$1.00 per copy or \$0.75 each for ten or more copies. Prepaid orders to: American Association for the Advancement of Science, Office of Science Education, 1515 Massachusetts Ave., NW, Washington, DC 20005.

R&D Information

Technology Transfer: How to Make It Work by Hymen Olken describes what technological advances are being produced by government R&D programs, where to find the reports, how to use the information. It is available for \$7.00 prepaid from Olken Publications, 2830 Kennedy St., Livermore, CA 94550. (96p. pap.)

Medical Journals on Film

A contract to record on film over one million pages of medical literature has been awarded to UMF Systems Inc. (Los Angeles) by the National Library of Medicine. It is expected that it will take about one year to film these medical journals from U.S., England, Germany and Russia between 1870 and 1950. The final product will be available in roll film, fiche, ultrafiche or hard copy.

IBM Circulation Control

An IBM computer program—Library Circulation Control System—is said to provide control over any book in circulation. The IBM 2791 Terminal is used, along with the System/7. The System/370 or System/3 can prepare daily circulation status reports as well as overdue and fine notices. The program will be available in November for a monthly charge of \$325 for 24 months.

NCLIS Contracts

The National Commission on Libraries and Information Science has awarded study contracts for \$52,000 for FY72. The studies include: 1) preliminary investigation of present and potential library and information services contracted to the University of California (Berkeley); 2) an analysis of social, economic, and technical requirements for libraries and information services, 1975-1980; 3) a study of funding sources for public libraries; and 4) a feasibility study of centralized and regionalized interlibrary loan centers.

Medical Library Fellowship

The Medical Library Association will offer a six-month fellowship Sep 1973-Jun 1974 which provides for observation and work in one or more medical libraries in the U.S. or Canada, enrollment in a course in medical librarianship, and a limited amount of travel. Applications are available from Dr. Carroll F. Reynolds, Chairman, MLA Committee on International Cooperation, Falk Library of the Health Professions, University of Pittsburgh, Pittsburgh, PA 15213. Deadline is Mar 1, 1973.

Employment Task Force

ALA/SRRT (Social Responsibilities Round Table) has established a Task Force on Jobs. Its aims are to help create more effective methods of matching job openings in the library profession with interested applicants. For information: Phyllis Baker, SRRT/Task Force on Jobs Coordinator, 1957-A Prince George Dr., Columbus, OH 43209.

Technology for Libraries

Advanced Technology/Libraries (AT/L) is an information service designed to analyze the new technologies relevant to libraries. A key objective of the publication is stated as developing better user understanding of technological concepts and innovations, particularly of developments potentially important to libraries. The subscription rate for the 10 times yearly publication is \$28.00 per year within the U.S. and Canada. Becker and Hayes, Inc., 11661 San Vincente Blvd., Suite 907, Los Angeles, CA 90049.

Oil Spill Information Closes

It has been announced that the Oil Spill Information Center, University Library, University of California, Santa Barbara, closed as of Jun 30, 1972, due to lack of funds.

Journal Index Available

National Microfilm Association has issued a "Cumulative Index of the *Journal of Micrographics*." The computer-prepared index covers all articles in the *Journal* by List of Articles, Author, Title. The Index is \$1.00 from NMA, Suite 1101, 8728 Colesville Rd., Silver Spring, MD 20910.

Doctoral Program Funded

The Committee on Institutional Cooperation (the consortium of the Big Ten universities and the University of Chicago) has been awarded a grant of \$53,000 to fund Phase I of a four-year program to train 18 students from minority or disadvantaged groups in library science at the doctoral level. Director of the program will be Hiram L.

Davis who is now completing doctoral work at University of Michigan, School of Library Science, Ann Arbor.

Inventiveness Reward

Entries are invited for the Robinson Medal 1972 which is awarded every two years to a person or firm that has devised new and improved methods in library technology and administration. For information: The Library Association, Secretary, 7 Ridgmount St., London WC1E 7AE. Entries are due Nov 30, 1972.

Statistics

To receive the Newsletter of the Federal Statistics Users' Conference (FSUC), address your request to FSUC, 1523 L St. N.W., Suite 300, Washington, DC.

Librarian Compensation

"How Well Are They Paid?" summarizes a second survey on "compensation structures of professional librarians in college and university libraries, 1970-71." The booklet is published by Council on Library Resources, Inc.

Art Literature

ARTbibliographies began publication in 1972 to provide bibliographic control of art literature. Both retrospective and current awareness search facilities are provided. Documentation relating to 20th century art will appear semi-annually in ARTbibliographies MODERN. Another service (CURRENT TITLES) reproduces tables of contents of 300 core art periodicals concurrent with their publication date. For subscription information: ABC-CLIO Inc., Riviera Campus, 2040 Alameda Padre Serra, Santa Barbara, CA 93103.

Joseph Wheeler Memorial

A new resource center has been developed in Montpelier, Vermont, called the Joseph L. Wheeler Memorial Room. Library science materials from various collections have been added to those from Dr. Wheeler's own collection after his death in 1971. Dr. Wheeler was elected an Honorary Member of SLA in 1970.

REVIEWS

Copyright: Current Viewpoints on History, Laws, Legislation. Allen Kent and Harold Lancour, eds. N.Y., Bowker, 1972. 125p.

Originally published in Volume 6 of Marcel Dekker's *Encyclopedia of Library and Information Science*, this collection of essays on copyright law and practice in the United States is appropriately subtitled "current viewpoints" and it is with that emphasis, repeated throughout the book, that it can be recommended to purchase by all manner of libraries. It is unfortunate that the book cannot address a more settled state of affairs in the development of copyright law in this country but such is the transient nature of the subject. What happens next depends, at this writing, on the course of copyright law revision in the Congress and the outcome of a suit by the Williams & Wilkins Company against the National Library of Medicine that is pending in the U.S. Court of Claims. Any day, after a decade of waiting, many of these viewpoints could become obsolete.

Nevertheless, the book performs some handy functions not easily available elsewhere including a recitation of the U.S. copyright law in Title 17 of the U.S. Code as amended; a lucid exposition, with texts, of the two principal international agreements that have attempted to organize worldwide copyright protection, and an excellent summation of the legal implications of copyright doctrine currently and historically as it affects libraries by one of the most eloquent spokesmen on that subject, Mr. Abe Goldman, General Counsel for the Copyright Office. More routinely, Dr. Charles Gosnell, Director of Libraries, New York University, surveys the library photocopying problem which is now so much a part of the hassle in the courts and Congress and repeats his concern for a definition and reaffirmation of "fair use" copying for the purposes of the new legislation if it ever comes about. In this respect, Dr. Gosnell remains the constant advocate of liberalizing "fair use" copying for libraries short of a total exclusion for their benefit and an authority on the requirement of printed notice and the ancillary issue of a fixed term for the duration of copyrights.

However, one of the most thoughtful essays in the book is by Professor Lyman Ray Patterson of the Vanderbilt University School of Law who, after describing legal development of Anglo-American copyright practice, cites the historic anomaly of legal pronouncements that have invariably ruled that the author's right is paramount while implicitly guaranteeing a monopoly in favor of the publishers who by sale or assignment become the real beneficiaries. For this reviewer, the point has never been so well developed in a book of this character. Professor Patterson concludes that it is patently unnecessary that a publisher have the sole and exclusive right of publication for a period of 56

years as is now legally permissible. Alternatively, Professor Patterson recommends a copyright law based on a duality of interests: An author's copyright identifying the true owner of these rights and a publisher's copyright identifying the nature of the work with a stated term of protection "consonant with the public interest"—an interest that has so far had scant attention in the development of copyright law but which is now mobilized by the advent of computerized information systems, "networking," and the assurance that information once gained will diligently serve the multitude. In result, Professor Patterson's proposal would not necessarily mean the end of the author's right to receive royalties or publish his work elsewhere once a given publisher's rights had expired. Finally, on the royalties question, Professor Patterson would like to see something like a compulsory licensing provision for all publishing (not well defined elsewhere in this book) whereby a work once published may be republished by anyone upon payment of a license fee to the copyright owner; i.e. the author, just as Art. I, Sec. 8 of the U.S. Constitution intended. Compulsory licensing has long been a successful basis for copyright protection in music publishing.

On the publisher's side, Messrs. Benjamin and Kuney of McGraw-Hill and the American Chemical Society respectively plead the cause of research incentives and the economic viability of publishing, but one must return to Professor Patterson to answer some of the questions they believe cannot be resolved in present practice or with the proposed legislation. An overly long essay by Professor Michael Duggan of the Department of General Business, University of Texas, essentially examines the problem of how, if at all, the computer and its champions can reimburse the publishers for work totally or partially committed to dissemination through the new technology. Once he crosses the relatively certain hurdles of the computer hardware problems, he is confounded like many before him by the difficulty of registering the software as a key to access: You can presently register the method but you cannot protect the ideas that inspired the program. This is a useful summation of present practices but not much more than a recitation of them supported by the learned authorities Professor Duggan cites at length. With it is a competent 17-page bibliography on the protection of proprietary rights in software and this may be valuable for libraries confronted by computer applications requiring registration in the Copyright Office. But there are exceptions in Professor Duggan's authority especially where he claims that "the full text input of laws and legal cases into an information retrieval system would pose no significant copyright problems." The law publishers have yet to meet this statement head-on but when they do, they can derive considerable support

from Professor Duggan's conclusions about the timeliness of computerized information. This is precisely an area where viable rights are involved with full text in or out and supporting editorial commentary so necessary to legal research. There are more than hardware problems to be faced here. In this area of copyright concern, the proprietors and users of automated information should be overwhelmingly concerned with modifications in the *duration* of rights whether specifically encumbered or free for the asking. As Professor Duggan says, computer technology will not respond to present copyright procedures.

Allen Kent concludes this book with a sensible presentation from the author's viewpoint possibly best summarized by the statement that "substantial distribution [of a published work] is assured through the increasing emphasis on 'blanket' orders by many libraries." Nice to know that the authors' spokesman finally mentioned this sizeable market for publishing of all kinds—a market that must be maintained despite the not at all insurmountable difficulties in copyright practice frequently expressed in this book.

J. S. Ellenberger
Covington & Burling
Washington, D.C.

Bowker Serials Bibliography. Irregular Serials & Annuals, An International Directory, Second Edition. E. Koltay and L. Valuck, eds. R.R. Bowker, N.Y., 1972. xxv; 365p. (2781 to 3382); Index. \$38.50 ISBN 0-8352-0423-5, ISSN 0000-0043, LC 67-25026.

Among the intricacies of serials management some of the thorniest problems are connected with bibliographical control of "Irregulars." That term in its widest sense covers all serials except newspapers and journals issued more frequently than once a year. Any other serial, be it an annual or a serial published at least twice under the same title, be it a first publication which plans to have subsequent numbered issues or simply any "publication issued in successive parts bearing numbered or chronological designations and intended to be published indefinitely"* belongs in this "twilight area" between books and periodicals. Among such titles could be a volume I of a so-called Yearbook issued in 1963 while the world is waiting more or less impatiently for issuance of volume II.

The only directory that comes to grips with this problem was first issued in 1967 and its second edition has now appeared within the framework of *Bowker Serials Bibliography*, thereby tying it to its older sibling *Ulrich's International Periodicals Directory*, 14th edition.

The first edition of *Irregular Serials* . . . contained about 14,500 entries, this second edition has extended coverage to close to 20,000 entries. Even so, the editors, to avoid drowning in materials, had to exclude much more than they included, especially the huge mass of government and intergovernmental publications, the many annual reports disseminated by corporations, foundations, financial and educational institutions. What is left are the titles most likely to be in demand by scholars and scientists as well as by the general public.

To organize this material was no easy job. Titles are duplicated ad infinitum and recourse

to corporate entries proved to be no complete solution because one would even then run into a multitude of Agricultural Experiment Stations, Botanical Gardens, etc. In these cases recourse was had to geographical terms in addition to title and corporate description.

The serials are arranged under 230 subject headings and each entry contains: title, frequency, price, name and address of publisher, Dewey Decimal numbers. In most instances subtitle, language used, year first issued, name and address of sponsoring organization and editor are also added.

A new feature of this volume is the extent of the index. It covers not only the irregulars and annuals but also the 45,000 magazines listed in the 14th edition of "Ulrich's." This "Title Index for Bowker Serials Bibliography" includes for the first time the country code and the ISSN (International Standard Serials Number) for each entry. It is hoped by the Z39 Committee of the American National Standards Institute (ANSI) and the editor that the ISSN will do for serials what the ISBN is doing for books—that is, it will provide the serials publisher, the subscription agency, and the librarian with a tool for communicating basic information with a minimum of error.

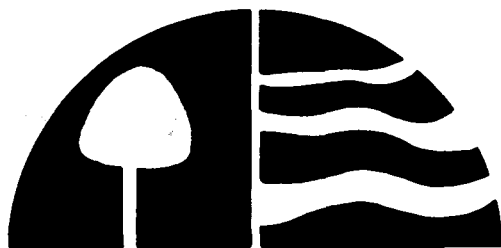
As with every bibliography of this type, each user will miss one or another of his pet publications and he will wonder about the inclusion of what he will call ephemera. All in all, however, the book presents a large spectrum and is of great usefulness to all but the smallest libraries.

One unfortunate feature is the lack of cross-references in the index, as far as regular journals are concerned. The user must therefore still occasionally consult the index in "Ulrich's." We are promised that this fault will be remedied in the next edition, two years hence. Also planned are a supplement late in 1972 and an updating service beginning Mar 1973.

Ralph Lessing
Special Libraries Association

SPECIAL LIBRARIES

* The definition for "serial" in the Anglo-American cataloging rule.



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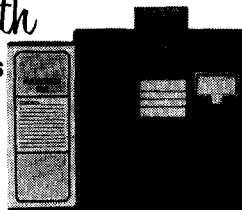
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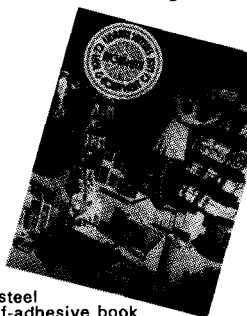
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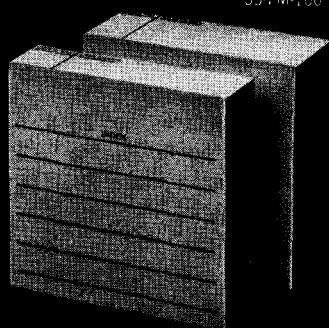
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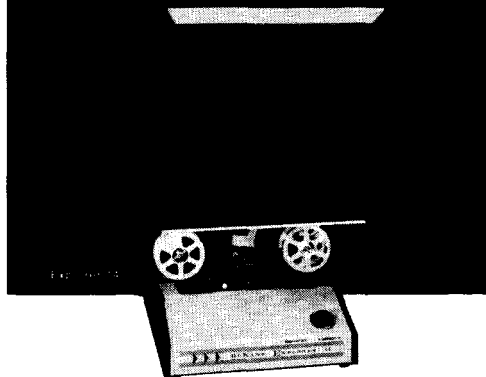
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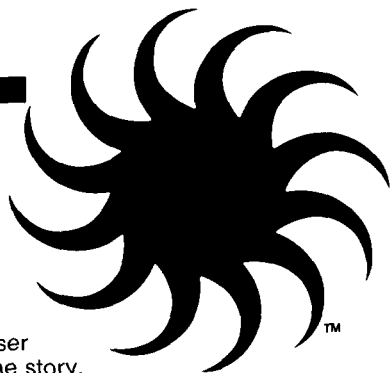
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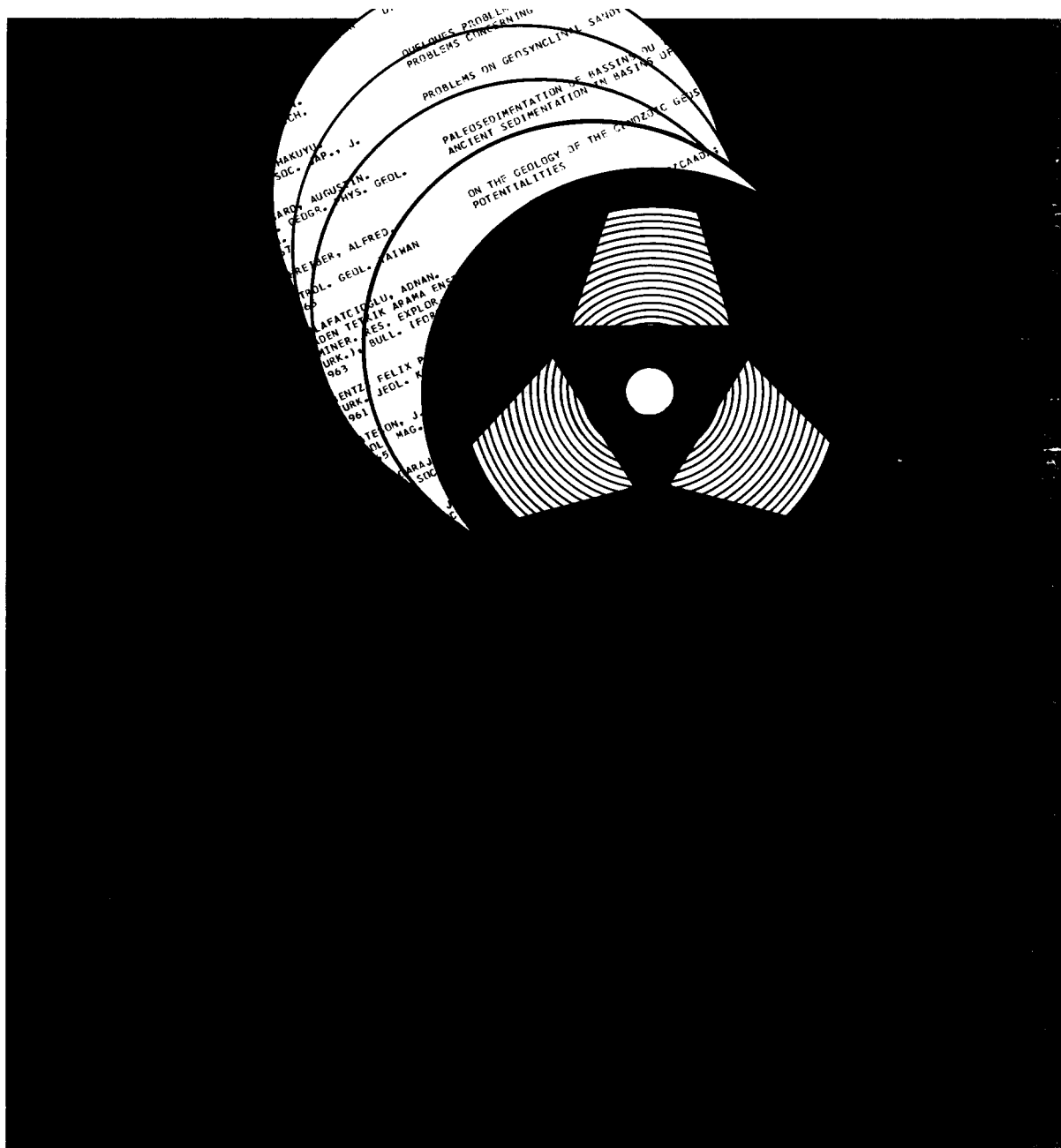
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